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An Address.[1]

By W. J. SAXTON,

President, Queensland Branch of the British Medical Association.

IT is not easy for me to express the fullness of my appreciation of the honour which has just been conferred on me. Therefore, I shall attempt no more than to thank all members of the Queensland Branch of the British Medical Association for accepting me as their president for the ensuing year.

I am well aware that I bring with me no particular prestige of past honours or distinction. Nevertheless, I shall do my best to carry out the duties of my office, and, if I may say so, to uphold the ancient standards of our profession—standards which I hope will remain immutable throughout the deep-rooted changes which are taking place in the world today. Among these changes is the relationship of the medical profession to the community as a whole. There was a time when doctors were concerned almost wholly with the sick individual. Today the doctor finds himself more and more concerned with the affairs of the State, and the State is more than ever concerned with the affairs of the medical profession; so that it seems to me appropriate that we are privileged this evening to have among us so many representatives of different sections of this community.

In my university days it was an initiation custom to make a freshman in college get on to a stage and perform, either by singing or reciting or in any way that he wished. If the performer had unusual talent we had the pleasure of hearing him, and if he had no talent, but was on the contrary hopelessly bad, we could still enjoy watching his discomfiture. Perhaps it is a relic of those rude ingenuous days that we still, in our years of sophisticated wisdom, insist that an incoming president shall as the first of all his duties stand up on a platform and perform. There is this difference, however: our performances now lack the gaiety as well as the wit and humour of those days. We become more conscious of our dignity as we grow older. Not that I think we have more real dignity now. In fact, we may have less of it in our character and thoughts since we joined in the battle for existence than we had in the fellowship of youth. Whether this is so or not, we certainly regard good lusty humour as unbecoming on important occasions, and there are many occasions which we consider important—or at any rate we feel important on so many occasions. Perhaps this is as it should be—although I do think that the wise clown has as much dignity

[1] Delivered at the annual meeting of the Queensland Branch of the British Medical Association on August 22, 1953.

as the sombre fool; but feeling ourselves important so often, we are leaving humour out of our lives more and more, and I believe greatly to our detriment. The doctors of the mediæval university of Salerno seemed to place some value on happiness and good humour. Their famous "*Regimen Sanitatis Salerni*" has two couplets in it which were translated by Sir John Harrington as follows:

> Use three physicians still: first Doctor Quiet,
> Next Doctor Merryman, and Doctor Diet.
> Joy, Temperance, and Repose
> Slam the door on the doctor's nose.

I am still ignorant of any better advice than this to avoid, say, hypertension or a peptic ulcer.

Ever since Momus, the jester of Olympus, was expelled by the gods and forced to live on earth, we have had fun and folly among us, and the greatest of all fun has been the spectacle of folly.

When the gods were bored one day they caused a priest to declare from the steps of his temple that a shower of rain would fall and wet only the fools among those assembled. None moved except one philosopher, who took shelter. Then the rain came, and all were soaked but the philosopher. When he emerged dry from his shelter, the crowd in their wet clothes jeered at him because he was the only one among them who had admitted to being a fool. And only the gods on Olympus saw the funny side of it all.

Up to three hundred years ago no ruler worth his salt considered his court complete without its jester or court fool.

The last of these court jesters died in the person of Jamie Fleeman in 1778. It is said that he is still remembered by the people of Buchan as the Fool to the Laird of Udny. In spite of their title, these men were not fools by any means. They had to be rather intelligent and sensitive to the mood of the moment. Here is a comment written about one hundred years ago:

> The character of the Court Fool of former days is commonly somewhat undervalued. Generally speaking he was a compound of humour, tact and impudence, and obtained his title less from "being" than from "playing" the fool.

India has records of court jesters as far back as the eighth century. One of the most famous was Ramakistnan. Another famous jester of the East was Bahalul, who served Caliph Haroun al Raschid of "Arabian Nights" fame.

The humour of these jesters, with its biting truth and ridicule of the ridiculous, was quite frequently directed against their employers, whether king, bishop or baron; but in spite of this, or because of it, they were often highly rewarded and many of them became wealthy men. A remarkable licence was granted them, and this, no doubt, led to an intimacy and close personal friendship with their masters in many cases.

William the Conqueror, who "recked little of men's love or hate" and whose "wild outbursts of passion spread terror through his court", was able to inspire so strong an affection in one of his jesters, named Goles or Gollet, that he saved him from murder on one occasion. Another of the Conqueror's jesters, Berdic, retired from service as the owner of three towns and five carucates of land. More than fifty years earlier, Hitard, the first English jester on record, received the town of Walworth from Edmund Ironside as a gift of gratitude. After living as a decent squire of Walworth for thirty years, Hitard left England for Rome, but before doing so he gave his town to the Canterbury Cathedral, which, so far as I know, still owns Walworth.

Scogin, a student and later a tutor of Oriel College, Oxford, became jester to Edward IV, who gave him a town house in Cheapside and a country mansion in Bury. Incidentally he had a maxim as a tutor that "a merry heart doeth good, like a medicine".

Henry VIII was kinder to his jesters than to his wives. One of them, Patch, formerly jester to Cardinal Wolsey, persuaded Henry as a jest to grant him the right to claim an egg from every dissatisfied husband and actually got him to sign a warrant for it. Patch's first claim was on Henry himself as an undoubted dissatisfied husband. Another jester of Henry VIII was Will Sommers, perhaps the most famous and highly respected of English jesters. He figured in several plays in his own and later times.

I find that a simple intimate story of an individual will sometimes make an historical period more alive to me than the description of a great event, such as this interesting anecdote of Will Sommers's uncle. This village stalwart considered that there had been an act of local injustice, so he set off to see the King about it. Here is a description of him as I have it:

> A kinde old man with a buttoned cap, a lockram falling band (coarse but clean), a russet coat, a white belt of horse hide (right horse collar, white leather), a close round breech of russet sheep's wool with a long stock of white kersey, a high shoe with yellow buckles all white with dust—for that day the good old man had come three and twenty miles on foot.

When he asked his way to the King's palace the folk at Greenwich laughed at his rustic simplicity and misdirected him to Blackwall, and "the gards and gentlewomen in their windows had much sport to see him pass on his way". But the old country freeman of England eventually found his way to the palace and inquired of the guards there with dignified self-possession "if there be a gentleman in the Court dwelling called by the name of Will Sommers". Although amused by the title of gentleman, they knew whom he meant and called the jester. Will welcomed his old uncle and agreed to present him to the King. As they passed through the courtiers in the anteroom, Will Sommers called out: "Awere: room for me and my uncle: and knaves bid him welcome."

The old yeoman stood before King Henry, neither arrogant nor servile, but with the respect due to his undoubted King from a free-born Englishman, and told his tale of Tirrell's Frith. This was a common in his Shropshire village, the use of which had been denied to the poor because Master Tirrell had wrongfully enclosed it.

The King ordered the reopening of the common, and Uncle Sommers returned to his village, where "he while he lived for that deed, was allowed bayly of the common which place was worth twenty pounds a year". So the old man drank his ale in peace, free and content, and passed out of his little page in history.

Will Sommers continued with his jesting and with his baiting of Cardinal Wolsey, whom he very much disliked, much as Archee Armstrong did to Archbishop Laud many years later. Archibald Armstrong served James I and his son Charles I. The following dialogue will give some idea of the relationship between a court fool and his master. James was very worried that he had given Charles permission to make his hair-brained visit to Madrid in disguise in order to woo the Infanta. "I must change caps with your Majesty", said Archee. "Why?" inquired the King. "Why, who", replied Archee, "sent the Prince into Spain?" "But supposing", returned James, "that the Prince should come safely back again?" "Why, in that case", said Archee, "I will take my cap from my head and send it to the King of Spain."

However, this did not prevent Archee from following the Prince over to Madrid, where his wit and impudence soon made him quite at home. According to a letter written from Madrid at that time, Archee "hath more privilege than any, for he often goes with his fool's coat, where the Infanta is with her ladies and keeps a blowing and blustering among them, and flirts out what he lists". This company did not prevent Archee from proclaiming his loyalty with his wit. On one occasion they were happily remarking how strange it was that King James's son-in-law should have been defeated by the Duke of Bavaria with a much smaller army. This did not please Archee at all, so he said: "I will tell you a stranger circumstance: is it not more singular that one hundred and forty ships should have sailed from Spain, to attack England, and that not ten of them should have returned to tell what became of the rest?"

Trouble came to Archee when he used his wit outside the court. This was years later, in the reign of Charles.

For years Archee had carried on a bitter feud with Laud, Archbishop of Canterbury, and eventually was so offensive, in the opinion of Laud, that he reported him to the King-in-Council, which made it more than a personal matter. Archee was dismissed. The order of dismissal is still preserved and in this form:

> Whitehall, 11th March, 1637. It is this day ordered by his Majesty, with the advice of the Board, that Archibald Armstrong, the King's fool, for certain scandalous words of a high nature, spoken by him against the Lord Archbishop of Canterbury, his grace and proved to be uttered by him by two witnesses, shall have his coat pulled over his head, and be discharged of the King's service and banished from the Court; for which the Lord Chamberlain of the King's household is prayed and required to give order to be executed, and immediately the same was put in execution.

However, Archee had saved enough money to marry and live in retirement until old age. He died in 1672.

It may have been a native wisdom in these old kings and lords which led them to employ jesters. They may have thought, as some of us do today, that a pose of infallibility and pomposity was necessary, but they had the wit to realize that this would not end with hoodwinking only their subjects; it would eventually deceive even themselves, and so they kept a jester to prick this bladder of self-deception with their sharp wits.

I wonder what changes in the course of history we owe to these vanished jesters. They were not without influence surely. Now they are gone, and there are no successors to wear their motley and to sweeten the bitterness of rulers with good belly-shaking laughter. After poor Yorick died there seemed to be no jester in the Royal House of Denmark, one who could "set the table on a roar". Whether the meals then became silent and tense and led to dyspepsias as the root of all that followed on would need further investigation. Had Charles I not dismissed Archee, but retained his jester and his sense of humour, his fate may have been different, and if today there were jesters at the discussions of the United Nations and in the parliaments of the world, perhaps there would be less deceit and false pride and distrust. It is very difficult for deceit to maintain a disguise of honesty in the face of good humour. Humour also has the habit of stripping off the trappings of wisdom and revealing the folly underneath. Perhaps that is why we become a little afraid of humour as we grow older. And yet we of the medical profession should welcome humour whenever we can, both for our patients' sake and for our own. We of all people know how the jester can show his wise and kindly face among pain and suffering. He will even flaunt his cap and bells within the folding arms of death itself.

Was it a coincidence that Rahere, the Norman, who later became a monk and founded Saint Bartholomew's Hospital, was known as the unofficial jester at the court of Henry I? Or do you think that having the quality of humour so strongly in him, he was more tolerant and more easily imbued with a constructive sympathy for suffering after being sick himself of malaria?

Now if we introduced specialists of jesting into the practice of medicine I fancy they would not be the least patronized of our auxiliaries; but it might happen that our pride would be a little humbled to see the discarded powders and tablets as we passed their doorways; and the peals of happy laughter we heard might just possibly make us wonder whom they were laughing at.

I am sure it was Oliver Wendell Holmes who said: "A man need not be a king to know what it is to summon a jester." I assume he meant that we each have our own jester within us—that is, if we have not dismissed him as poor King Charles did.

At this moment I am just wondering about my own jester because I want to talk about our ideals, and I rather fear the derisive gleam in his eye if anything I say should smack of sanctimony.

I must confess that I had never bothered to think very much about the ideals of our profession until one Sunday afternoon last summer. A group of us were idling on the lawn of a friend's home. We had enjoyed an excellent luncheon. The day was very hot and, as is usual in these circumstances, the conversation gradually subsided into those gentle ripples of talk which lap over you as it were and lull you into carefree drowsiness. I had just reached this state when someone asked (certainly in the lazy mood of the moment, but, I think, a little provocatively): "Just what are these ideals of the medical profession?" Now I believe that, had I thought long enough, I could have made some sort of reply; but before I could do so I had sunk deeply away in sleep; the ripples passed over me and I was lost to any concern with medical philosophy, or even with the iniquities of my enemies.

But the question recurred to me later on. I felt that it could not be answered with any nebulous ideas of lazy thought; also it demanded something more than just to wash one's hands of it and evade it with a jest. As I did not hear the subject discussed in conversation, I commenced to pay attention to any reference to our ideals in medical writings so that I might learn what these ideals are. But the meaning of the word "ideal" implied by its context varied so much that my ignorance was replaced by confusion.

I came across phrases like this one: "A whittling away of those ideals of a great profession which had grown up over the centuries." This gave me the impression that our ideals and our traditions are the same; that they are the standards set up by the best men of our profession, both past and present.

Here are some other extracts:

"He saw the ideals of a factory civilization creeping in . . . ."

"It is dangerous for a man to speak in public upon his aims and ideals, for he soon finds himself only too vulnerable. If, occasionally, he dares to do so it is not to be inferred that he has any conviction that he has lived up to them."

"Members of professions being human, practice may not always attain to the ideal . . . ."

"Through social security an ideal has largely been realized . . . ."

To me the word "ideal" in these examples suggests the best conductor system we are capable of at the present time. This interpretation, or to regard traditions as ideals, did not, I thought, hold the answer to the question I had been asked. It seemed to me that if the word "ideal" had any value at all in the sense in which I am discussing it, it surely must denote a concept of thought and conduct beyond the standards that exist. So I reluctantly turned to the dictionary. (Reluctantly, because I do not enjoy seeing healthy growing words bound up in the strait-jackets of definitions. However, strait-jackets are necessary sometimes.) The simplest definition that I found was this: "Answering to one's highest conception." If this be applied to our profession, I suppose then we could regard our ideals as the highest conceivable development of our traditional ethical standards; or could we say that they are the highest conception of our function which is in some way related to our purpose?

Now I think you will all agree that it is possible to conceive a quality of thought and conduct which is far beyond our present powers to achieve. Our highest conception—our ideal—is therefore unattainable at present. But not only is our ideal unattainable at present, it is forever unattainable; for if we advance towards our highest conception we must obviously grow in moral and intellectual stature, and in doing so we become capable of a still higher conception.

Our traditions, on the other hand, refer to what has been attained, if only by the greatest in our history. Mankind has always tended to safeguard his traditions, jealously regarding them as a protection against the disruptive influences of his intellectual and social state. These traditions are indeed the "ashes of his fathers". They are not "the temples of his gods"—by which I mean his ethical concepts and ideals.

If traditions have their value, what then of our ideals? Have they any effect, or are they just a thought process by which we rationalize our vanity and hide from ourselves our deep fears of the unknown future?

I believe, and I suppose that most people believe, that the possession of ideals does have an effect upon us. I think it comes about in this fashion: man conceives a state of thought and conduct which he hopes to reach; and once having conceived it, he becomes inexorably drawn towards it. By this power of projecting his conceptions far into the future, man has the unique faculty of lifting himself up by his own boot-straps, as it were. Aristotle seemed to hold some such teleological doctrine when he wrote:

> One must not however obey those who bid us "think humbly as mortal men"; nay, rather we should indulge immortal longings, and strive to live up to that divine particle within us.

The airman of today is flying further and further towards outer space. He has some vision which draws him on, but he does not know where or why. I suppose that the highest conception he is conscious of, or can express at present, is interplanetary travel; but I would not like to guess at his visions a few centuries from now. And it is the same in the ethical sphere. It is one thing to have an ideal and to believe in its power upon us, but it is another thing to form a conscious idea of it—to be able to express it. We can form an idea of anything only within the limits of our experience, but our ideals, like religious faiths, go so far into the future that they are beyond experience. All we can do is to hold to some general concept. We cannot express them as definite ideas. Probably they spring from a deep level of man's being, below the very limited area of his consciousness. They are, to borrow a phrase from McGlashan, "man's unconscious tribute to the unknowable".

If an ideal, then, is both man's highest conception and a means by which he is urged towards its attainment, even if he cannot formulate it, what evidence is there to suggest that the medical profession in particular is influenced by ideals?

There is the remarkable fact that the principles of our ethical standards have remained unchallenged for probably three thousand years. (Almost certainly they existed long before they were codified by Hippocrates.) Of course, individuals and groups of doctors have betrayed the ancient code. After all, we have always had our share of hypocrisy, meanness and greed. But this only makes it more difficult to escape the conviction that there has been something outside ourselves, some urge, some ideal, which has maintained throughout our very long history this strong moral texture in our accepted medical standards, and this in spite of the tremendous religious, social and material changes which have taken place. Since the days of Hippocrates great new religious faiths have arisen, obscure communities have become great empires and have sunk back again into obscurity, social systems have changed both insidiously and by revolution. In all these events doctors have been involved and have consequently found themselves opposed to other doctors on religious, national or social questions, and yet today doctors throughout the world have no difficulty in agreeing upon a common ethical code.

Dean Sperry, in his excellent book "The Ethical Basis of Medical Practice" has this to say:

> . . . the ethics of accepted medical usage represent both in theory and in general practice the highest professional standard now recognized in our country.
>
> The pre-eminence of medical ethics in the field of the several professions may well be due to its long history, a matter of twenty-five hundred years, and to the initial and still classic statement in the Hippocratic Oath.

I offer these quotations as an authoritative lay opinion on the prominence of our ethical standards; but I show that temerity proverbially denied to angels when I rush in to disagree with Dean Sperry's statement that the pre-eminence of medical ethics is due to its long history and to the Hippocratic oath. I believe that the Hippocratic oath itself, as well as the consistency of our ethical standards and their preeminence today, are all the result of our ideals. The possession of ideals and, as a consequence, a high ethical outlook seems to be inherent in our profession, but not, of course, an innate quality of ourselves personally. The reason, I think, lies back in the very beginning of medicine, and also in the fact that the function of healing often involves great moral and ethical problems.

It is humiliating, and perhaps stimulating, for those of us who grow lax at times in our ethical standards to be reminded of doctors of all races and in different ages, who have simply and quietly held to their professional principles under very great stress.

There was Dr. Wilson, for example, who died with Scott in the Antarctic. Probably there is no need for me to do so, but I shall remind you briefly of the incident. On January 18, 1912, Scott, with Oates, Bowers, Evans and Wilson, left the South Pole on their return journey of 800 miles. They dragged their sledges against head winds, through blizzards and over jagged ice and snow "heaped like desert sand". Within eleven miles of safety they died. It would seem that there was opposition on Dr. Wilson's part to the distribution of opium to his patients (for such they were) for the purpose of euthanasia. In reflecting on this it is worth remembering that, had the opium been used for this purpose (which it was not), Dr. Wilson was aware that it was most unlikely that anyone would ever know, or knowing would have censured them. I shall read you some extracts from their diaries without offending you with the bathos of any further comments of my own.

> 18th January, 1912. After lunch we made 6·2 miles from the Pole Camp to the north again—and here camped the night.
>
> 7th February, 1912. Wilson snow-blind and has strained a tendon in his leg.
>
> 17th February. Evans died.
>
> 24th February. Wilson snow-blind again—it is a critical position. Wilson, the best fellow that ever stepped, has sacrificed himself again and again to the sick men of the party.
>
> 2nd March. We are in a very queer street since there is no doubt we cannot do the extra marches and feel the cold horribly.
>
> 5th March. Our fuel dreadfully low and the poor soldier (Oates) nearly done . . . we none of us expected these terribly low temperatures, and of the rest of us Wilson is feeling them most; mainly, I fear, from his self-sacrificing devotion in doctoring Oates' feet.
>
> 8th March. Worse and worse this morning; poor Oates' left foot can never last out and time over foot gear something awful—Wilson's feet giving trouble now, but this mainly because he gives so much help to others.
>
> 11th March. Titus Oates is very near the end, one feels. What we or he will do, God only knows. We discussed the matter after breakfast: he is a brave fine fellow and understands the situation but he practically asked for advice. Nothing could be said but to urge him to march on as long as he could. One satisfactory result of the discussion: I practically ordered Wilson to hand over the means of ending our troubles, to us. Wilson had no choice between doing so and our ransacking the medicine case.

Even without the inspiration of medical ideals Dr. Wilson had a saintliness in his character which placed him above the ordinary run of men. Our medical history is as rich as any in records of such men, and also of those doctors who, though no saints, yet showed a martyr's fortitude in defence of their ethical principles.

One thousand years ago Hunain ibn Ishaq was a student at the then famous medical school of Jundeshapur in Persia. This school had been founded about the end of the fifth century A.D. by the followers of Nestorius, the patriarch who was expelled from Constantinople on a point of religion. These Nestorians had brought with them many of the best writings of classical Greece, including those of Hippocrates.

Hunain was not considered very bright by his master, so as if to confound him, he went to Greece, studied there

and mastered their language and then returned to practise in Baghdad. He then set about translating the old Nestorian Greek records into Arabic and thus helped to save them for future generations. He made a lot of money by the sale of these translations.

Now the Caliph of Baghdad had an enemy he wanted to destroy, so he sent for Hunain and asked him to concoct a poison for this purpose. The fee for doing this would be outstanding wealth; but if he refused it meant imprisonment and perhaps torture. Hunain (who is sometimes called Johannitius) firmly refused and was sent to the dungeons. A year in the dungeons did not weaken his resolution, for when he was again given the choice of supplying a poison or not, with the threat of execution if he refused, he replied: "I have already told the Commander of the Faithful that I have skill only in what is beneficial and have studied naught else."

Instead of executing him, the Caliph was impressed with his integrity and made him Court Physician. In this position he fulfilled many of the functions that today belong to the office of the Director-General of Health and Medical Services. He became adviser to the government of Baghdad, in the person of the Caliph, on medical matters. Soon a College of Translators was formed, to enlarge the work Hunain had been doing. This grew into a medical school, and Hunain's old master from Jundeshapur, the one who had thought Hunain rather stupid, became its first president. A Board of Examiners was then instituted with a delegate of the Caliph as president, and eventually medical practice was forbidden to anyone not registered by the Board. This was in A.D. 931.

Here, then, were these two doctors, Wilson and Hunain, separated by religion, race and a millennium, one dying in the Antarctic and showing a reluctance to infringe his code of ethics when all the world would have forgiven him had it known, and the other willing to die rather than use his medical knowledge for a criminal purpose.

Emerson once wrote: "Through the years and centuries, through toys and atoms, a great and beneficent tendency irresistibly streams." We know that in the world of medicine the impulses of human nature and the consequences of environment have affected our progress; but we too can say that through the years and centuries, in spite of backslidings and false trails, the inspiration of our ideals irresistibly streams and holds us to a constancy of ethical progress.

It may be that we are responding to some urge towards the unknowable; but even if unknowable, it is impossible to imagine that our ideals do not conform to the ultimate purpose of mankind, and it is equally impossible to imagine that this ultimate purpose is not concerned with the personality of the individual. In other words, the inspiration of our ideals, whatever they are, is concerned with the person as an individual. We could be more explicit and say that the development of the individual is not for the purpose of evolving a perfect social State and for the scientific mastery of physical laws, but that social evolution and scientific inquiry exist solely for the purpose of the infinite development of the individual. They are only a means to an end, and as such they do not provide the inspiration of our purely medical ideals.

The trouble is that the citizen is apt to look on the State and the scientist is apt to look on science each as an end in itself, and when the doctor is involved, either as a citizen or as a scientist, an illogical resistance and restlessness result, because he is drawn away from the tug of his ideals.

Professor Pulvertaft made this comment:

> It is therefore inevitable that there should be an element of conflict between the doctor's sense of duty to the community in acquiring new knowledge, and to the individual, in facing that individual's personal and immediate emergency.

The story of Democedes as told by Herodotus is an interesting illustration of a doctor's restlessness and rebellion against medical duties which were forced upon him, even when the compulsion was accompanied by great material benefits. I have often wondered why the writers of screen plays have missed this story with its intrigues, murders in the dead of night, the glamour of an oriental harem, hairbreadth escapes and even a genuine lovers' reunion at the end.

Democedes was a doctor from Croton in southern Italy, and according to Herodotus "the best skilled in his art of all men living". When Polycrates, the ruler of Samos, heard of this great doctor, he was in the employ of the ancient Athenians on a salary of about £1200 a year. Polycrates offered Democedes £1500 to practise at his court, and Democedes accepted.

Now Darius was king of the Persians at that time, and he had a viceroy named Oroetes ruling for him in Sardis in Asia Minor. Oroetes secretly hated Polycrates. By careful planning he lured Polycrates over to Sardis, together with many of his court, including Democedes. As soon as he had Polycrates in his power he murdered him at night in a particularly horrible fashion, and made slaves of his followers. It happened, however, that King Darius found Oroetes to be disloyal, and had him executed and all his slaves brought down to the royal capital of Susa.

Soon after this, Darius, in jumping from his horse, forced one ankle bone out of its socket. His Egyptian physicians could not reduce the dislocation, and for a week Darius had no sleep because of pain. Someone then remembered that among the slaves of the executed Oroetes was a Greek physician of high reputation named Democedes. They therefore went and brought Democedes before the King, clanking his fetters, uncared for and in rags. Democedes denied that he was a doctor, for fear that by doing so he would lose all chance of ever seeing Greece again. However, the threat of torture induced him to admit to some small knowledge of medicine. Now let us take the words of Herodotus as translated:

> And Democedes, by using the remedies customary among the Greeks and exchanging the violent treatment of the Egyptians for milder means, first enabled him to get some sleep, and then, in a very little time restored him altogether, after he had quite lost the hope of ever having the use of his foot. Hereupon the king presented Democedes with two sets of fetters, wrought in gold. So Democedes asked him if he meant to double his sufferings because he had brought him back to health.

I think the fetters of gold were meant as symbols only: that Democedes would remain a slave in status but would be repaid in gold for his services. Evidently this arrangement did not suit Democedes, and hence his reply to the King. Herodotus continues:

> Darius was pleased at the speech, and bade the eunuchs take Democedes to see his wives, which they did accordingly. Then each of the wives dipped with a saucer in a chest of gold and gave so bountifully to Democedes, that a slave named Sciton, who followed him, and picked up the staters (about equivalent to sovereigns) which fell from the saucers, gathered together a great heap of gold. . . . Democedes lived in Susa in a large house and feasted daily at the King's table, nor did he lack anything that his heart desired, excepting liberty to return to his country . . .

It is impossible not to admire Democedes. With all his commonsense acceptance of fate, he had proved himself a man of spirit and even at the moment of precarious good fortune he stood by his professional brethren, although of a foreign race, as this further extract shows:

> By interceding for them with Darius he saved the lives of the Egyptian physicians who had had the care of the King before he came.

A wife of the King named Atossa developed an abscess in her breast, which continued to spread. After getting her promise to suggest to the King that he make war on the Greeks "Democedes applied his art, and soon cured the abscess".

The result was, as Democedes foresaw, that ships were fitted out and sent with him as guide to make a survey of the coasts of Greece. This seems to be the first step in the

great Persian invasion of Greece, and it was instigated by one of our medical brethren's desire for liberty.

By a ruse that has been used more than once in modern times, the King of Tarentum in Italy detained the Persians and allowed Democedes to escape to his nearby home town of Croton. The King of Tarentum had affected to believe that the Persians were spies and had locked them up until Democedes had got away; then he freed them with apologies for his mistake and returned to them the rudders of their ships, which he had removed.

Democedes sent word to the Persians to tell their King that he had married the daughter of Milo, a very famous wrestler, believing that this would mitigate the anger of Darius, who was a wrestling enthusiast.

It may have been his love for Milo's daughter which made him so anxious to leave the luxurious life in Susa; but in that case he showed a constancy which would be remarkable in any age, if his temptations were all that we may infer. On the other hand, he may have simply rebelled against a compulsory practice. The wealth that he was given and the additional very great wealth promised him on his return from Greece could not compensate his spirit for the fetters he wore, even though they were symbolical and made of gold.

In the case of Democedes it was his professional skill which raised him from slavery to luxury and freedom; but it was not at all unknown in Eastern countries for a humble slave in the royal household to become in the course of time the virtual ruler of the country. Can you picture the jester, sitting unnoticed in a corner of the great hall, cracking his knuckles, and his shrewd eyes amused as he watched the slave, who had been brought in to attend to his master, gradually usurping the royal duties until the King was forgotten and the slave ruled in his place?

Can you imagine some ghostly jester today enjoying the sardonic joke as our slaves, the State and Science, aid and abet each other, and become the rulers, while the individual, their royal master, is forgotten?

Out of their loyalty and herd instinct people find it easy to attribute to their sovereign States qualities they cannot possibly possess.

The State has no brain that can reason or a mind to be inspired. The State cannot be brave or cowardly. It cannot feel either sick or well. Only living persons have these attributes, and each person exhibits them in some manner peculiar to himself.

The State is an organization, a machine, with its primary purpose the protection and development of each and all of its citizens. As such it is essential to our existence, and being essential it becomes right that a citizen should be willing to give his life for his State. It is also right that some part of each citizen's personality—his desires and his fitness—should conform to the needs of the State. In this way the citizen creates a machine to serve him and to advance his civilization. But if all his personality must conform to the pattern of the State, and if the conception of his health is only according to the needs of the State, then there is nothing left for the machine to serve. The slave has become the master.

Since the size of a national army abroad no longer depends on the supply problem, as it once did, but mainly on the population of a nation and its resources, it has been realized that the health of citizens, and the number of them, are vital factors in national preservation. It is inevitable in these circumstances that mass enthusiasms arise which lead to a conception of health in accord only with the immediate needs of the nation—not the person's own sense of health, but a condition of fitness most suitable to the efficiency of the State.

As I said before, the citizen must permit some part of himself to conform to the needs of his State; but the momentum of collective opinion tends to demand that not some part, but all of himself should so conform.

The wisdom that came from an age-old battle with sickness had given the medical profession a very personal outlook on health, but this is submerged, or is likely to be, by mass enthusiasms. One result of this mass enthusiasm is that people become disease-conscious, or if you like, health-conscious, although I think the two expressions amount to the same thing. People are conditioned to become conscious of disease or incapacity in any form.

There was a time when a person considered himself well if his senses or mind were not disturbed by stimuli coming from within himself, and rarely was he so disturbed until his attention was distracted from his interest or job in life. This meant that what was ill health to one need not be ill health to another. Stiffness in the little finger of a pianist was serious unfitness, but it would pass unnoticed by the singer. The gardener of yesterday gave only grudging attention to his aching joints and his winter cough—a little liniment, perhaps, and a bottle of medicine. His joints continued to ache and his cough remained his winter companion (as indeed coughs still do), but his main concern was his dream of producing a black rose.

The citizen of today is taught daily of the dangers that threaten his body. Whether he feels unpleasant sensations or not, he is trained to fear the lurking disease. The obvious result is that people find their attention diverted from their purpose in life and directed to the state of their bodies. Their minds are developing internal radar machines to detect the slightest strange shadows within their personal orbits. When our young man of today grows old, his stiffening joints and his winter cough will lead him to seek a full investigation to see if any of the measurable functions of his body depart from an established norm. He himself will become his greatest interest, and should he dream of producing a black rose he will be cured of his dream by a visit to the psychiatric clinic.

There have been many attempts to define what we mean by health, but none of them seems quite satisfactory. I do not think it matters very much. It is likely that my ideas are pickled with prejudice, but I think that health is very much a personal matter, always elusive, and as manifold as there are people on this earth. Everyone wants, and should have, health according to his own individual personality and need—that is, within the usual limits of freedom; but he will not attain this by too great an interest in his health, and his interest does become too great when it is stimulated by mass enthusiasm.

Was Keats healthy? By collective and arbitrary standards he was not. The tubercle bacilli thrived and spread their toxins throughout his body and perhaps caused such subtle changes in his mind that should entitle them to some credit for the word music he left us. Had he lived today, the disease might have been discovered early and arrested, and Keats, who was a medical student, might well have become the editor of a medical journal. But would we have had his poetry?

Before I know what is health in a person, I should like to know what goes to make up his totality. Is the poetry of Keats as much a part of him as were his lungs? Are the intelligence, character and personality as much a part of a man as his limbs? If by losing the power in his limbs he gains in those other qualities, has there been a total loss or gain in health?

Sir Owen Dixon in his Arthur C. Mills Oration quoted Wendell Wilkie to the effect that the qualities which the late President Roosevelt's misfortune had called forth, and the conditions of life that it imposed, had indeed been a source of strength—they had contributed to the President's success. Which, then, was the healthy Roosevelt? The man who could walk, or the man in the wheel-chair with his mental powers enhanced by his paralysis?

If medicine is a science and an art, the complete doctor must have within him something of the scientist, something of the artist. Probably each represents to some extent what Kant calls the "regulative principles". Neither can reveal to us the ultimate nature of reality, but each must be used to its fullest extent towards this purpose. However, it is easy to regard science as we are inclined to regard the State—that is, as an end in itself. Science,

like the State, should be a servant dedicated to the needs of the individual; but scientific inquiry has an intrinsic interest of its own, and this interest can lead the scientist, particularly the medical scientist, away from his primary purpose.

Professor Pulvertaft (if I may quote him again) in his presidential address last year to the Association of Clinical Pathologists, spoke as follows:

> But medicine and above all scientific medicine must never forget that in the ultimate analysis the only significant problem, is the interest, both immediate and remote, of one frightened patient. Our vague insistent feeling that humanity's problems are so vast that only vast generalisations can deal with them may lead us to forget that frightened unit.

If our scientific servants are inclined to dazzle us doctors with their marvellous powers, we at least have as a corrective the inheritance of medical wisdom and ideals. But the State in its new-found interest in medicine has no such inhibitions. The scientific aids to medicine it regards as marvellous new toys to be used with no other limitation than its resources.

Mass enthusiasms, departmental attitudes, laws, all combine to force the doctor to submit his patient to technical procedures, which he may deem unnecessary or inadvisable. There is, of course, the laudable desire for early and preventive treatment which seems such a joyous road to a medical Utopia; but every manœuvre in the battle of health begets other dangers. The public has not the knowledge, nor should it be expected to have the knowledge, of what these dangers are; so that it is unfortunate that public opinion should have such an important effect on medical procedure.

The Lancet, in a sympathetic discussion of some administrative problems of the National Health Service in England, made these comments:

> One factor that may yet bedevil the health service is uninformed public opinion. This danger is described by Professor McKeown when he says "medical services developed entirely, or mainly in response to popular pressure are likely to prove very unsatisfactory. Popular opinion will certainly urge a proliferation of the curative services".

For a time the doctor can only stand and stare at the amateur enthusiasm of the public; but soon the rhythm of its dance to the new-made idols affects him also, and he is whirled away in the happy throng and all the instruments beat out a merry tune. But the jester passes by with a mocking smile, as he sees it is the slaves who conduct the tune they are dancing to.

This world-wide concern of the State with the health of its people, the mass enthusiasms which influence medical judgement, our tendency to allow the inventions of science to dominate our philosophy, are not the result of any malign conspiracy of certain people or parties. They are the inevitable result of wider and deeper changes throughout the world. They are part of the eternal wobble in human progress. The balance, in medical outlook at any rate, will be kept by our ideals, which come not from the scientific side of human nature with its reason and logic, but from the artistic side with its intuition or inspiration.

Robert Platt cites Bertrand Russell to the effect that reason is not the driving force which is supplied we know not whence, but the inspiration of the artist.

Reason and logic cannot provide us with a purpose or an ideal, nor can they give us the urge to pursue an ideal. This must come, like the ideal itself, from intuition and inspiration, which belong only to what we may call the artistic side of human nature.

W. I. B. Beveridge (1951) gives this quotation from Einstein:

> There is no logical way to the discovery of these elemental laws. There is only the way of intuition which is helped by a feeling for the order lying behind appearances.

In the same paper Beveridge makes the following statement:

> The great scientist must be a creative artist and it is false to think of the scientist as a man who merely follows rules of logic and experiment.

It is, then, this artist in the doctor who will resist and eventually rebel against those forces which would lead us into by-paths away from the true course of medicine. It is the artist in us who will catch a glimpse of the jester's leer as we follow some Pied Piper of mass enthusiasm or the lure of golden fetters.

The artist is the essential rebel in life. He must be by the very nature of art; for what is art but the form given to some elusive idea in the mind of one particular person—an idea which is new and unique, and therefore different from all other ideas that prevail? It intrudes upon and alters convention, and in that sense art is a revolt, whether it adds some quality to experience or destroys a falsity. Two things, then, are implied in an act of creative art. There is a revolt, or at least a protest, against the existing state of thought or knowledge, and whether revolt or protest, it is the act of an individual.

Ever since that first bubble broke the stagnant surface of primæval slime, art has represented the assertion of the individual against the settled pattern of his environment—whether the artist is Praxiteles working with marble or a doctor with the healing of a patient. We can imagine, I suppose, that it was the artistic impulse which led that lowly creature of a palæozoic sea to rebel against a watery existence and be the first to fling itself onto some lifeless shore.

That first disturbing bubble, that first amphibious creature, like our stupidities and mighty hopes, are all a part of the restless surge of life; but beyond all this there would appear to be that gift to mankind of exercising a free will. It is true that our minds are conditioned by our environment, but beyond these limitations we may choose how we shall use the knowledge we have acquired. To this choice we apply either our reasoning or our intuitive mind or perhaps both; or rather let us say that we can apply either knowledge or wisdom. We all know that a man's knowledge is not a measure of his wisdom, or that of two men with equal knowledge one may be wise and the other not. The field worker or the fisherman may cease from his labours for a moment and choose with greater wisdom than the scholar. Knowledge, however, has continually increased, and very much so in our time, but it is doubtful if there has been an increase in intuitive wisdom for many thousands of years. If our modern thinkers have added anything to philosophy, it is due to an increased knowledge of the mind and central nervous system and other phenomena; but I do not think that any of them would claim a greater wisdom than that of the ancient philosophers, biblical or otherwise. I think this is due to the fact that each scientific discovery becomes the key, in the hands of many scientists, to a multitude of other discoveries. In this sense science is impersonal. Wisdom, on the contrary, remains a personal attribute. We may use, if we will, the wisdom of others; but the possession of this wisdom does not enable us to create more wisdom of our own.

It seems disturbing enough to think that knowledge is increasing more than is our wisdom to use it; but it is more immediately disturbing to realize that knowledge has given us powers that can destroy those very personal qualities from which spring the corrective revolt of art and the guidance of wisdom.

There is, for example, the threat we ourselves are creating to those personal qualities by the injudicious use of our discoveries in order to foster a collective outlook. We have developed the habit of thinking collectively, partly because of a feeling of national insecurity and because our technical devices facilitate the spread of ideas. Indeed, they facilitate it so well that should anyone control these technical devices he would almost control the viewpoint of the community. This collective viewpoint is not a bad thing in itself. We owe a great deal to the modern State and to the modern discoveries which hold us together as a firm community; but if I may repeat myself, it is necessary

to keep in mind that their ultimate purpose is to serve the needs, not of the community, but of each and every person.

There is some awe in the realization that each one of us has qualities which distinguish him from every other person in the world today and from every one who has ever lived or shall live. These qualities should be served, they should be nurtured and developed in accordance with an ethical purpose. The danger is that, instead of being servants to this end, our collective way of thought, this thinking in terms of a group or a nation, becomes with modern aids the master and destroys the very qualities it should enhance.

We become so pleased with our gains in knowledge and new technical devices that we want to use them—without thought of their ultimate purpose, without wise choice or judgement. We dance to the tune they play and do not see the Fool laughing at our folly.

Many of you as children have stood in some empty tunnel or great hall and shouted and then listened to your voice reverberate and echo. It gave one a feeling of being so small and insignificant in a vast emptiness. And you have also heard your voice in some other hall where the words were carried distinctly, but flat and unresonant, like the voice in an empty theatre when the play is over. These are the halls we desire to build today, and not those rich old echoing places that seem to us obsolete and inefficient.

Someone has explained to me that most of the old Gothic type of buildings, and halls built like this one on the same principle, have this defect of echoing. Modern construction, I understand, will eliminate this.

Poor little "Echo". First of all she pined away for love of Narcissus until only her voice remained, and now we would banish even her voice from our daily affairs and leave it to amuse honeymoon couples in Katoomba.

I wonder if those old builders had in fact regarded the resonance of their buildings as a defect. Perhaps they built them to enrich the sound of many voices, and not for a single speaker to be heard distinctly. They may have felt instinctively that the emotion common to a mass of people should be the mingling of all the individual emotions and not a mass emotion created by the voice of one man. They would have heard in the vast chambers of some old cave their voices echo and fuse into one grand primitive harmony before fading away into the shadows, and it would have seemed as if the message they cried was indeed carried on to a mysterious somewhere.

In the temples they built the speaker was limited to a stately cadence. If he shouted, his single voice would echo and reecho in hollow mockery of his arrogance, and his words would be lost among the domes and dim arches high above him.

In such places people gathered to chant their praises or scream their curses, to exult in victory or to wail in misery and defeat. The sounds of their singing, their shouts of panic and defiance, their prayers of supplication or gratitude, all have echoed there, and the echoes have mingled them into the great common voice of perplexed and wondering mankind.

Today the humblest man in English-speaking countries and in western Europe has more rights in the choice of his rulers than ever before; but, by a quirk of circumstance, he has less freedom of individual thought or emotion to exercise that choice.

No longer is it necessary for men to form their judgements by conversation in groups and for their leader to submit his views, his character and his personality to an impact with those of his followers. Instead we can sit in acoustically perfect halls or in our homes or our holiday and sporting places and permit our judgements to become just a passive response to a distant voice. And in case any of you would protect the privacy of your minds by sleep, or enjoy contemplation (disguised as attention), this microphone and loud speaker or the "wireless" can shatter your peace and bewilder any private reasoning. Should any errant notion escape from the spacious playing fields of a fool's mind, it can be transformed by this Aladdin's lamp of ours into such a monstrous volume of sound that all personal judgement is numbed and wilts before it and we believe it to be a very genie of wisdom.

It would be ridiculous to imitate the people of Erewhon and deny ourselves the use of all that knowledge has given us, whether it is good acoustics or the means of amplifying the voice; but we are allowing this knowledge to depreciate individuality and to foster the collective spirit.

As you know, the authorities of the Brisbane Boys' Grammar School graciously allowed us to use this hall last year, as they have this year. We sincerely appreciate having a setting like this for our annual meeting, with its dignity and historical associations. This hall also has its echoes. When I look at these high walls and upreaching arches and at those honour rolls with the names of many who have served their country with loyalty and worth, I am reminded of all such echoing school halls and of all that has echoed in them: the trampling feet of generations of boys, their singing and laughter, applause or healthy ridicule and all that goes to make up good companionship; and then there are those very personal echoes, too soft for anyone to hear, of a small boy sobbing when he was homesick and alone in spirit. These echoes go ringing down through the years and imbue these school halls with a quality no architect or builder can give them—something attuned to that choice indefinable human quality. Because of this, men return to these places after many years when they are encrusted with cynicism and disappointment. If these old halls evoke memories, they are not memories of clearly heard words or formal actions, but of a medley of lingering overtones—the echoes and the humour, sometimes bringing with them, like a fleeting whisper, the memory of a boy who had once looked into the future with high hopes and the ideals of youth. Each individual retains the yearning for what is his own personal self, and sometimes he is forced to look for it in his memories because he has allowed himself to become just a unit in the mass with only his unit's share of the mass judgements and ideas.

We doctors often have to search in our memories and return in imagination to the echoing corridors of our medical schools to find the young man who believed that the members of his chosen profession were nearly all aware of their rich medical heritage and were consciously inspired by it. Then came the strain of competition; growing dignity, loss of humour; and with them disillusion—perhaps prosperity. Only in later years, with the influence of patients' humble gratitude and a broader view of human weaknesses and faults, does the young man come nearer to a true perspective. I feel sure that disillusion would not have been so great and that an approach to a true perspective would have come sooner if that young man had been nourished on medical history. However, in spite of subsequent cynicism, this early naïve belief in our ideals is one of the most powerful influences in our progress towards them.

If we look at the history of royal Britain with our imagination stirred by its dark hours and the high triumphs of its glorious days, we have an illustration of how a people's steadfast belief in an ideal can exert its "beneficent tendency". In theh great cavalcade of kings and queens there have been tyrants and weaklings, some who were bad and some who were good. The human frailties of many often withstood the ennobling influence of their coronation vows and prayers. But the faith remained in the people—intuitive, real and subject only to a passing inconstancy—that the mystical ideal revealed in the coronation ceremony would eventually, if slowly, enrich and strengthen the character of their monarchs.

Though a king might forswear his vows, there were his subjects holding fast to an ideal which bade them remain loyal to the institution of the crown. Though a king might be gross and selfish, there were his subjects continuing to encompass his office, and indeed his person, with a reverence he little deserved.

And so, slowly, imperceptibly, it has come to pass, not by any purposeless chance, but by the grace of God and

the majestic constancy of the British race, that our Queen today holds a sovereignty over the hearts of men which extends far beyond the boundaries of her realm. As loyal men and women we can find inspiration in the records of our race to ensure that the great British Commonwealth of Nations exerts a good and powerful influence on the social development of mankind. As doctors we have a proud tradition of more than 3000 years to remind us that our real concern is with the person, each person of any race or creed, proud or humble, noble or degraded, and that it is the person—who alone can suffer pain and sickness, who alone can know the frets and exaltations of life—who is the sovereign realm of our ideals.

But the question "What are our ideals?" remains unanswered.

Perhaps when I was asked this question on that sleepy afternoon I could have given no better answer, suitable to the moment, than to quote Flecker:

> We travel not for trafficking alone:
> By hotter winds our fiery hearts are fanned:
> For lust of knowing what should not be known
> We make the Golden Journey to Samarkand.

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ANÆSTHESIA IN CÆSAREAN SECTION.

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Anæsthesia for Cæsarean section must fulfil certain conditions: (i) The mother must be anæsthetized and the abdomen relaxed. (ii) The fœtus must be neither anæsthetized nor relaxed, and should cry spontaneously on delivery. (iii) Uterine retraction should be unimpaired.

In 1947, Gray described the use of curare in Cæsarean section, and in 1949 Corbett and Thomas reported 100 cases, in which they used a standardized technique following Gray's method.

The present article records a further series of 100 anæsthetics, 74 administered by myself, and 26 by resident medical officers, using the method of Gray and Corbett and Thomas, in the King George V Memorial Hospital, Sydney.

Method.

To avoid any depression of fœtal respiration, no sedative is given (Corbett and Thomas, 1949; Gray, 1947; Whitacre and Cressman, 1951; Thomas, 1951). Atropine one-hundredth of a grain (0·65 milligramme) is given subcutaneously half an hour before operation.

No move to begin the administration of the anæsthetic is made until surgeon and staff are gloved and ready, and the skin preparation and draping have been begun.

When all is ready, 0·15 gramme (three millilitres) of thiopentone is given intravenously, followed immediately by 15 milligrammes of tubocurarine (Gray, 1947). The patient is asleep in thirty to sixty seconds, the facepiece of the anæsthetic machine is applied, and the administration of cyclopropane is begun at the rate of 500 to 800 millilitres per minute. When respiration and the "feel" of the patient's mandible indicate that light anæsthesia is established, the surgeon is asked to test the degree by clipping the skin or making a small cut. This should cause no more than a slight reflex movement of the legs, and the surgeon is then told that conditions are right for him to complete the incision; this stimulus should cause slight leg movement, but not sufficient to disturb the instruments laid out near by.

As a rule the flow of cyclopropane can then be discontinued, as during the incision of the deeper layers of the abdominal wall and peritoneum and the insertion of packs there is usually sufficient cyclopropane in the circuit to give anæsthesia, whilst the relaxing effect of the tubocurarine is at its maximum.

After the peritoneum has been opened and bowel packed off, the reservoir bag of the anæsthetic machine is emptied and refilled with fresh oxygen several times at intervals of thirty seconds or so, the aim of the anæsthetist being to do his best to bring the patient out of the anæsthetic.

As the amniotic sac is opened a further 0·35 gramme (seven millilitres) of thiopentone is given, and ergometrine is given as soon as the head is delivered.

After delivery anæsthesia presents no special problem, as it is the same as for any other abdominal operation. In actual practice, it has been found that the remainder of the gramme of thiopentone is usually sufficient to maintain anæsthesia, sometimes with the addition of a little cyclopropane or nitrous oxide, for the remainder of the operation.

Results.

In this series there were three neo-natal deaths and one fœtal death.

On three occasions the operation was performed at such an early period of gestation, for obstetric reasons, that the fœtus was not expected to survive, and this method of anæsthesia was used in the hope that the unexpected might happen. In fact, it almost did, and there were no neo-natal deaths less than twenty-four hours after delivery. Two of these deaths were reported by the pathologist as being due to prematurity; examination of the third baby that died revealed cerebral œdema and hydronephrosis, death occurring thirty-one hours after delivery.

One fœtal death occurred. Cæsarean section was decided upon in this case owing to a sudden and alarming change in the fœtal heart sounds, and immediately before induction of anæsthesia they could not be heard. A dead fœtus was delivered. A post-mortem examination revealed that death was due to anoxia. *Placenta prævia* had been found at operation, and a concealed accidental hæmorrhage had occurred.

Discussion.

Several minor departures from Corbett and Thomas's method were made.

1. At the beginning of the series, sodium cyclohexenylallyl thiobarbiturate ("Kemithal") was used as the barbiturate given intravenously, but for the most part thiopentone in an initial dose of 0·15 gramme was used. No significant difference was found in the results, although "Kemithal" is said to be less depressant to respiration.

2. The tubocurarine is given after the barbiturate, as the onset of acute "myasthenia" is very frightening to a conscious patient. No trial dose of tubocurarine is given—the full dose of 15 milligrammes is given at once as in Gray's original method. Undue sensitivity to curare appears to be very rare, and in experience of its use in a large number of cases over several years I am not convinced that I have ever seen it occur.

3. The injection of 0·35 gramme (seven millilitres) of thiopentone when the amniotic sac is opened ensures anæsthesia and a quiet relaxed abdomen during delivery. Compression of the placenta due to release of pressure, and the time lag in transmission across the placenta (Harroun *et alii*, 1947) must make it very unlikely that any of this dose reaches the fœtus. No depression of uterine contractility occurs.

4. In all cases of *placenta prævia*, and in any others in which post-partum hæmorrhage is thought likely, a 12 gauge venesection needle is used on the thiopentone syringe. This can be inserted painlessly by the use of a little 2% procaine solution, and a large bore needle is very necessary if rapid transfusion is required. In any case a needle of not less than 18 gauge is used.

5. In those cases in which the surgeon wishes to have the patient in the lithotomy position for vaginal examination before Cæsarean section, the same method of induction is used, anæsthesia is maintained at as light a level as possible with cyclopropane, and a further five milligrammes of tubarine are given after the patient has been placed supine and whilst draping and skin preparation are being carried out.

6. Prior to the introduction of the method described, surgeons' preference had been for local infiltration anæsthesia with thiopentone given intravenously during delivery. The disadvantages of this method were that the patients, without exception, disliked it intensely, there seldom seemed to be complete freedom from pain, and the induction of general anæsthesia in the middle of an operation was not always devoid of danger and difficulty (Davenport and Prime, 1950). In any case, the elaborate preparation and practice of local anæsthesia could not be relied upon to take the surgeon any further than the parietal peritoneum. This occupied a very unpleasant half-hour for the patient, and required the expenditure of much time and energy for all concerned, and the same point can be, and often is, reached under general anæsthesia in less than thirty seconds.

Cyclopropane and oxygen alone had been tried and more or less abandoned. The use of these agents was a fairly successful method in suitable cases, as for women of slight build, and of easy and quick surgical approach; but for the big, strong, healthy woman, or when for surgical reasons delivery of the fœtus was delayed, it was found that the large amount of cyclopropane required led often to fœtal respiratory depression.

Spinal anæsthesia (Nicholson and Eversole, 1946) has seldom been used in this, the King George V Hospital, for Cæsarean section. Objections to it are the difficulty of lumbar puncture in women at term, with lumbar lordosis and large abdomen, the dangers of sudden and prolonged fall in blood pressure, especially when a large abdominal tumour is rapidly evacuated, and the ever-present and not always predictable danger of sudden hæmorrhage, which can add greatly to the dangers of a paralysed splanchnic vascular system. Also, as with local anæsthesia, Cæsarean section under spinal anæsthesia is a very frightening procedure on a conscious person without the benefit of any sedative premedication.

7. Vomiting and aspiration of vomitus into the air passages are always mentioned as dangers in general anæsthesia in obstetrics. Wilson (1950) advocates washing out the stomach as a routine procedure before operation; such an upheaval may not agree at all with the reasons for which the section is being performed, and not all stomach contents will go through a stomach tube. Most of us at some time have had unpleasant surprises at what was still in the stomach after an apparently exhaustive wash-out. In the series of cases quoted, vomiting with aspiration occurred once, and was dealt with by bronchoscopy under an additional 0·2 gramme of thiopentone (Gray, 1947). There were no respiratory complications in this case, and this would appear to be the method of choice in dealing with what is after all a rare occurrence. It is a simple and safe manœuvre, and gives positive evidence that the bronchial tree has been cleared out.

Conclusion.

The most noticeable effects of the introduction of the method of anæsthesia described here have been, firstly, the disappearance of other methods of anæsthesia for Cæsarean section in this hospital—a process which appears to have been swift, automatic, and dependent not at all on "salesmanship"—and, secondly, the disappearance of discussions as to methods of resuscitation of "Cæsarean" babies, previously always an interesting topic of conversation when two or three obstetricians and anæsthetists were gathered together.

Since these records were made up, many more Cæsarean section anæsthetics have been given by the same method, which has been found as satisfactory as ever.

The 100 cases quoted are too small a number from which to draw many conclusions, but, added to those reported by others, they serve to swell the total.

Summary.

One hundred cases are quoted of anæsthesia for Cæsarean section in accordance with the methods described by Gray, Corbett and Thomas, minimal amounts of thiopentone, curare and cyclopropane being used.

Acknowledgements.

I wish to express my thanks to Dr. M. J. L. Stening and Dr. W. D. Cunningham for their help to me when I was introducing this method of anæsthesia, to the many other medical officers concerned for their helpfulness in the operating theatre and in making their records available, and also to the members of the staff of the Obstetrical Records Department, King George V Hospital, for their ready and willing help with records and histories.

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SOME CLINICAL APPLICATIONS OF A RAPID PREGNANCY TEST WITH THE USE OF THE MALE TOAD (BUFO MARINUS).

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THE occurrence of sperm production and excretion in the male toad in response to the injection of gonadotropins was reported by Robbins and Parker (1947), and the clinical application of this phenomenon to the diagnosis of pregnancy by Mainini (1948).

Many species of frogs and toads have now been shown to respond, and various techniques have been used. The sensitivity of the toad compared with other laboratory animals has also been determined (Wannan, 1952). The species of toad readily available in Australia, *Bufo marinus*, is a suitable animal (Bettinger and O'Laughlin, 1950). Its sensitivity is such that 10 millilitres of pregnancy urine yield sufficient gonadotropin to stimulate sperm production and excretion.

The test is made by the microscopic examination of cloacal fluid three to four hours after injection of urine into the lateral lymph spaces of the toad. The presence of spermatozoa indicates the existence in the patient of functioning chorionic tissue elaborating gonadotropic hormone. If no spermatozoa are seen in a period up to twenty-four hours, it is assumed that no living chorionic tissue exists. We have found in 39 tests with negative results that if none of three animals injected shows a

positive result at the end of three to four hours, none shows a positive result in twenty-four hours. Further experience with this technique, in view of reports of positive findings with the later examination, would seem necessary before the examination at twenty-four hours is omitted.

Different authors report the overall accuracy of the male frog or toad test as varying from 87% to 99·7%. The error lies not with false positive results but with false negative results. Bettinger (1950) and Bettinger and O'Laughlin (1950) point out that while the test is not infallible, if precautions are taken, the occurrence of false negative results can be limited so that figures approaching the higher degree of accuracy can be reached.

In our series of 102 cases two false negative results have been recorded; both these tests were performed on specimens from patients with less than six weeks of amenorrhœa, and each when repeated a week later gave a positive result.

False negative results occur under the following circumstances.

1. If the test is performed too early or too late in pregnancy. As the level of serum and urine gonadotropin is maximal between the fortieth and ninetieth days of amenorrhœa (Smith *et alii*, 1951), the percentage of false negative results is increased before and after this time.

2. If the urine is too dilute. Since gonadotropin is excreted constantly, its level in any urinary specimen depends upon the concentration of the urine. The higher the specific gravity, the more accurate is the result (Gallia, 1953). The overnight specimen of urine, being more concentrated, is the most suitable specimen for examination.

3. If there is a disturbance of placental hormone production (Bettinger and O'Laughlin, 1950). In their series, four of seven false negative results were accounted for on this basis, the patients concerned suffering either threatened or complete abortion after a negative response to the test.

Apart from the advantages of a rapid test in the diagnosis of normal pregnancy, it is useful in the management of the following conditions: abortion, tubal pregnancy, uterine fibromyomata, the menopause, oligomenorrhœa and amenorrhœa, infertility, menorrhagia.

Abortion.

Early evacuation of the uterus is the currently favoured method of treatment of abortion, provided no living ovum is present. Frequently clinicians find difficulty in deciding whether the fœtus has been extruded, or, if retained, whether it is dead. The toad test is particularly useful in these cases, because a negative result indicates that the uterus may be evacuated; a positive result indicates conservative treatment.

CASE I.—Mrs. B.A., aged twenty-one years, who had been married for eight weeks, commenced her last normal menstrual period one week before her marriage. She complained of brisk vaginal hæmorrhage of three days' duration, during which she had passed several large clots, but nothing resembling a fœtus. Her breasts were turgid. The engorged vagina contained several large clots of old blood. The cervix was soft and no blood exuded from the external os, which admitted the tip of a finger. The soft, anteverted uterus was enlarged to the size of an eight weeks' pregnancy. The pulsations of the uterine arteries were palpated in the lateral fornices. Though this was clinically a case of threatened abortion, the diagnosis of complete abortion was made after a negative response to the toad test. The patient, having been reassured, was instructed to resume normal activities. No further bleeding having occurred, reexamination fourteen days later showed that involution of the breasts and pelvic viscera was complete.

Use of the test in this case shortened the stay in bed and obviated the need for curettage. It can be seen that the test will be of use in the differentiation of carneous from hydatidiform mole, or of threatened abortion from missed abortion.

Tubal Pregnancy.

While the toad test does not give the complete solution to the diagnostic problem in tubal pregnancy, frequently it is a useful ancillary aid. When a surgical emergency exists the abdomen will be opened, the surgeon not being prepared to postpone operation for the three or four hours necessary to confirm the presence of a living ovum. In any case, at the time of rupture, the ovum may be dead and the test result negative. The test is most useful when the Fallopian tube is still intact.

CASE II.—Miss G.B., aged eighteen years, had had irregular menstrual periods since the menarche. Six weeks after her last normal menstrual period she had a two-day loss, her usual period lasting for three days. Four days later a severe continuous pain commenced in the left iliac fossa. This was associated with anorexia, nausea and a white vaginal discharge which she had not observed previously. She presented three days after the onset of pain. The external genitalia were moderately engorged. The cervix and uterus were normal. An ovoid tumour measuring two inches by one inch, was palpated in the left fornix. This was soft, extremely tender and attached to the uterus. A provisional diagnosis of pyosalpinx was made and a toad test performed. It gave a positive result in two hours. The final diagnosis being tubal pregnancy, the left Fallopian tube containing an unruptured gestation sac was removed. Convalescence was uneventful and the patient was discharged home on the tenth post-operative day.

Mistaken diagnosis may have endangered the life of this patient. The rapid pregnancy test permitted early operation before the gestation sac had time to rupture the Fallopian tube.

CASE III.—Mrs. J., aged thirty-eight years, had had eight weeks' amenorrhœa when she presented complaining of severe lower abdominal pain and a white vaginal discharge. Pelvic examination revealed an exquisitely tender mass filling the left fornix and a painless soft mass in the right fornix. The provisional diagnosis was pelvic inflammation or tubal pregnancy. However, the toad test result was negative, so antibiotics were given. Since in five days there was no improvement, the final diagnosis of tubal mole was made. Laparotomy revealed a tubal mole on the left side and cystic degeneration in a *corpus luteum* of the right ovary. The left Fallopian tube and the *corpus luteum* were excised, and the patient made an uneventful recovery.

The negative result to the toad test justified observation of this patient without fear of explosive hæmorrhage prior to elective surgery.

Uterine Fibromyomata.

The risk of interrupting an unsuspected pregnancy during the surgical treatment of uterine fibroid tumours may be averted by the test.

CASE IV.—Mrs. R.D., aged thirty-five years, had a large clump of uterine fibroid tumours reaching to the level of the umbilicus. These had caused an excessive loss at her regular menstrual periods for the previous twelve months. In view of her nulliparity, myomectomy was planned. On her admission to hospital she reported that after eight weeks of amenorrhœa heavy vaginal bleeding had occurred during the previous two days. On examination of the patient the cervix admitted two fingers; the uterus was irregularly enlarged to the size of a twenty weeks' pregnancy. The toad test gave a negative result. After a blood transfusion, abdominal myomectomy was performed, when 12 fibroid tumours were enucleated. A clump of placental tissue having been removed from the upper portion of the uterine cavity, the cavity was curetted from above. Examination of sections revealed degenerative chorionic tissue with the fibromyomata. The patient made an uneventful recovery.

An early elective operation for uterine fibroid tumours was possible, since it was known that pregnancy was not being interrupted.

The Menopause.

Pregnancy may be unsuspected in a woman undergoing the changes of the climacteric.

CASE V.—Mrs. J.R.C., aged forty-six years, had observed that her menstrual periods had become scanty and less frequent for the previous eighteen months. She had three children, the youngest being eleven years old. For four months, during which time she had complete amenorrhœa, she complained of frequent hot flushes, lassitude and irritability. Her physician told her that these symptoms were probably due to the onset of the climacteric and prescribed stilbœstrol. Her condition did not improve, and when examination revealed the uterus to be enlarged to the size

of a sixteen weeks' gestation she refused to believe that she was pregnant. A positive response to the toad test made early the following morning convinced her.

Similarly a negative response to the test will permit the clinician to diagnose the menopause with speed and certainty.

Oligomenorrhœa and Amenorrhœa.

During the investigation of amenorrhœa, endometrial biopsy may interrupt an unsuspected pregnancy. As patients so affected usually have difficulty in becoming pregnant, a toad test performed before biopsy eliminates the risk of such termination.

CASE VI.—Mrs. E.B., aged twenty-three years, complaining of oligomenorrhœa of twelve months' duration, manifested no clinical abnormality. When she was examined after a menstrual period the characteristic phasic changes in her morning temperature records indicated that ovulation had occurred. No bleeding occurred for the ensuing six weeks. Endometrial biopsy was abandoned after a positive response to the toad test. The clinical signs of pregnancy appeared within two weeks.

Here, while the patient waited in the clinic, pregnancy was diagnosed, and its interruption by investigation of oligomenorrhœa was prevented.

Infertility.

Sometimes an unsuspected pregnancy exists in a patient undergoing investigation for infertility. Tubal insufflation, hystero-salpingography and endometrial biopsy should then be preceded by a toad test. The test is also useful for confirming the diagnosis of pregnancy when it is suggested by a basal temperature chart.

Menorrhagia.

Cases of functional menorrhagia following a short period of amenorrhœa, in which the uterus is soft and bulky and the cervix closed, may be difficult to differentiate from threatened abortion. Prompt curettage is good treatment, but can be performed only if pregnancy is safely excluded.

CASE VII.—A *nullipara*, Mrs. J.D., aged twenty-two years, began a brisk vaginal hæmorrhage after six weeks of amenorrhœa. She was treated for threatened abortion by the administration of morphine and the intramuscular injection of progesterone. Bleeding continued, and thirty hours later she was admitted to hospital in a shocked condition. Pelvic examination revealed a slightly enlarged, soft, retroverted uterus; the cervix admitted the tip of a finger. The vagina, which showed no vascular changes, was filled with fresh blood clot. Four hours after the patient's admission to hospital, the toad test result being negative, the uterus was evacuated of much blood clot and debris. Microscopic examination of sections revealed endometrium in the proliferative phase, undergoing cystic glandular hyperplasia. No chorionic tissue was identified. The patient was discharged from hospital three days later.

Had not the rapid pregnancy test been available in this case, conservative treatment might have continued under the mistaken diagnosis of threatened abortion until bleeding had reached dangerous proportions. Use of the test permitted early evacuation of the uterus and control of hæmorrhage.

Comment.

In medicine, accuracy of diagnosis is of paramount importance. Important, too, is the speed with which the diagnosis is made, so that early and appropriate therapy can be instituted.

In the type of medical problem we have recounted in this report, the pregnancy test with the use of the male toad in the manner described may be of considerable value in meeting both these demands.

Summary.

The rationale and method of performing a rapid pregnancy test, comparable in accuracy with other biological pregnancy tests, by the use of the male toad *Bufo marinus*, are described.

The test, as in the case with all laboratory aids, does not replace clinical diagnosis, but is a useful ancillary in the management of gynæcological conditions.

Case reports of abortion, tubal pregnancy, uterine fibromyomata, the menopause, oligomenorrhœa and menorrhagia are presented, in which the test has facilitated early diagnosis and active treatment.

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PREGNANCY TEST: AUSTRALIAN REPTILES AS TEST ANIMALS.

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WE have spent several months investigating the possibilities of Australian reptiles and amphibia as test animals for pregnancy diagnosis. Although quite a lot of work has been devoted to overseas species of Batrachia—*Bufo bufo* and *Rana esculenta* in England, *Xenopus lœvis* in South Africa, a Bufo species in South America, and *Bufo marinus*[1] imported into Queensland—owing to the fact that these animals are unprocurable or fail to become acclimatized in Australia, the test except with *Bufo marinus* has remained only of academic interest to the general practitioner here.

The object of this research was to establish a test utilizing material readily to hand, with simple technique that would require only a minimum laboratory equipment—a test that could be performed accurately by the general practitioner, particularly in country areas where laboratory facilities are not readily available.

Many species of reptile were found to react positively to the stimulation of gonadotropic hormones in pregnancy urine and serum. However, only two species were selected as practicable, in order of preference the male of the common green and gold Australian swamp frog, *Hyla aurea*, and the blue-tongued lizard, *Tiliqua scincoides*. Both are plentiful in all States of the Commonwealth. The former proved to be a very accurate and extremely sensitive medium for early pregnancy diagnosis.

We were able, for instance, in four experimental cases to detect pregnancy before a missed menstrual period; each diagnosis was subsequently confirmed by clinical examination.

[1] *Bufo marinus* is an American toad imported into North Queensland. One of us worked with this animal in Cairns in May, 1950; but owing to excellent work done by Bettinger and O'Laughlin in the same year, did not publish his findings. This animal, though easily available in North Queensland, is prohibited to other States as a noxious animal, and is therefore difficult to obtain by the general practitioner.

Time Factor.

The time factor for this animal was excellent—twenty-five to thirty minutes from injection to diagnostic reading. All types of untreated urine were used.

Accuracy.

In 161 experimental cases tested, 100% accuracy was maintained.

Table I shows details of experimental cases.

TABLE I.

Positive Reactions.

Period of Amenorrhœa.	Number of Days.	Number of Cases.
Before missed menstrual period	—	4
After missed menstrual period ..	1	9
After missed menstrual period ..	2	12
After missed menstrual period ..	3	12
After missed menstrual period ..	3 to 7	21
After missed menstrual period ..	7 to 28	36
After missed menstrual period ..	28 to 240	10
	240 days to parturition	5

Out of a total of 161 cases tested, negative results were obtained in 52, the patients being proved to be not pregnant.

Management.

Hyla aurea is simple to manage, remaining perfectly healthy and responsive for periods up to six months on a damp cotton pad in a suitable container with no further attention than daily changing of the pad.

The chief recommendation for the blue-tongued lizard is the ability to absorb massive doses (35 millilitres) of urine that proved toxic to *Hyla aurea* (1·5 millilitres). This animal proved accurate in eleven experimental cases.

Technique for Hyla Aurea.

A subcutaneous injection of material is made into the inguinal lymph sac.

A simple method is to hold the animal by the hind legs, allowing the front pads to grip the bench. This places the animal in an extended position.

Puncture the skin half-way up the right thigh. Slip needle forward until the inguinal sac is penetrated (the actual progress of the needle can be watched). Make the injection well within the sac. Care should be taken to make the actual injection as far as possible from the site of the puncture, otherwise inoculum is likely to ooze back through the perforation.

A similar technique has been found effective for all animals used.

A check reading of the animal's urine for spermatozoa before the test injection is always advisable.

Dosage.

When untreated urine is injected, the amount tolerated varies with the size of the frog and the toxic properties of urine. We have found it a sound working hypothesis to inject 1·5 millilitres to a 12 gramme frog, increasing or reducing the dose in proportion to the size of the animal.

Should urine prove toxic, divide the dosage into three injections, given at ten-minute intervals. Our own method is to administer a slight overdose (two millilitres) to a female buffer animal. Shock can be easily detected by progressive darkening of the pigmentation of the entire skin surface. This is used as indication of dosage distribution.

Serum.

Owing to the greater concentration of hormone in serum, 0·5 millilitre to a 12 gramme animal has been found to secure a reaction. After thirty minutes, should the animal give a negative response, administer a further 0·5 millilitre of the material used and read the result again in thirty minutes.

Reading Reactions.

Obtain urine after the desired interval. This may be accomplished as follows. Simply grip the animal with the index and second fingers along the back, and place the thumb above the pubic bone over the bladder. Hold the animal over a plastic sheet and squeeze. If this is done correctly, urine will jet onto the sheet and can be picked up by a pipette. Failing this, catheterize with a fine glass capillary pipette.

Make a hanging drop preparation on a microscopic slide and examine it under high dry power.

Positive Reaction.

The presence of spermatozoa in the preparation is diagnostic of pregnancy.

The number of spermatozoa present varies from the crowded field of a strongly positive result to the few spermatozoa of a weakly positive result. We find that the presence of spermatozoa, regardless of their number, constitutes a positive reaction.

Negative Result.

Failure to demonstrate spermatozoa in urine after careful search constitutes a negative result. Care should be exercised here—detailed and careful search should be made of several preparations taken at various times (the animal's urine remains diagnostic for twenty-four hours). As was stated earlier, a second injection should always be made and urine closely investigated before a negative reading is recorded.

Morphology of the Spermatozoa.

The morphology of the spermatozoa closely follows the pattern of mammalian spermatozoa; the apical headpiece is more sharply pointed and the mid-section is more elongated. The entire organism is larger and more flexible. No difficulty will be experienced in identifying the lashing movement of motile spermatozoa.

Sexing.

The only male sexing characteristic observed in the animal is a strip of black pigmented tissue along the outside of the thumb (probably the nuptial pad). This is quite specific to the male of the species, therefore a reliable guide to sexing. Should doubt arise, inject known pregnancy urine and look for a positive reaction.

Threatened Abortion.

Owing to the extreme sensitivity of *Hyla aurea*, an interesting field of research is indicated in the diagnosis of threatened abortion. This line of research is necessarily slow, owing to lack of material. Although at present we have not sufficient data to advance a scientific finding, the results to date for the early detection of hormone lack and the consequent diagnosis of threatened abortion are most encouraging.

Equipment.

The equipment required consists of a hypodermic syringe fitted with a number 17 needle (1·5 inches), glass pipettes, a plastic sheet and a microscope—any type capable of a magnification of about 300.

THE LIMITATIONS OF THE RAPID COPPER SULPHATE METHOD FOR THE ESTIMATION OF SERUM PROTEIN CONCENTRATION.[1]

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Phillips and Van Slyke (1945) have developed the copper sulphate method for the determination of serum protein concentration, involving the estimation of the specific gravity of the serum, which varies in direct pro-

[1] This work was made possible by a grant from the National Health and Medical Research Council of Australia.

TABLE I.

Protein Value by the Copper Sulphate Method ± Amount Necessary to Give Value by the Kjeldahl Method on the Same Specimen.

Observation.	Grammes of Protein per 100 Millilitres of Serum.						
	4 to 5	5 to 6	6 to 7	6 to 7	6 to 7	7 to 8	8
	4·05+0·70 4·12+0·20 4·76+0·40	5·20+0·67 5·38−0·13 5·38+0·75 5·56+1·14 5·58+1·09 5·73+0·91 5·73+0·04 5·75+0·25 5·80+0·57 5·90−0·13	6·00+0·28 6·02+0·13 6·10−0·01 6·10+0·12 6·10+0·23 6·10+0·41 6·10+0·10 6·18+1·83 6·25+0·61 6·35+0·27	6·35+0·02 6·35+0·44 6·36−0·90 6·39+1·29 6·39+0·26 6·40+0·15 6·40+0·01 6·40−0·35 6·46+0·27 6·47+0·46	6·53−0·55 6·46+0·00 6·48+0·33 6·82+0·00 6·82−1·88 6·90−0·25	7·0−0·77 7·11−0·32 7·20+0·26 7·20+0·50 7·53−1·40 7·53−0·90 7·53+0·34 7·62−0·62 7·65−0·72 7·64−1·27	8·02−0·60 8·25−0·72 8·26−1·50 8·26−3·10
Number of determinations	3	10	26			10	4
Average deviation ..	+0·43	+0·52	+0·11			+0·49	−1·48
Range of deviation ..	+0·20 to +0·70	−0·13 to +1·14	−1·88 to +1·83			−1·27 to +0·50	−0·60 to −3·10

portion to the protein content. The concentration of serum protein can be calculated from the specific gravity by means of a formula, or read directly from a line chart as given by the authors. The specific gravity of the serum is determined by a comparison between the effects produced by placing drops of serum in different copper sulphate solutions of known specific gravity. The solutions cover a range of specific gravity from 1·016 to 1·035, corresponding to concentrations of serum protein ranging from 3·2 to 10·5 grammes per 100 millilitres of serum. Each solution varies from the next by a specific gravity of 0·001. In the test a drop of serum is allowed to fall from a pipette held one centimetre above the surface of the solution onto one of a series of wide-mouthed bottles or large test tubes containing the solutions arranged in order of increasing specific gravity. If the serum is of greater specific gravity than the copper sulphate solution, the drop falls through the solution, and another drop is tested against a solution of slightly higher specific gravity. If the serum is of lower specific gravity than the copper sulphate solution, the drop rises to the surface, and the serum is then retested with a solution of slightly lower specific gravity. This procedure is continued until finally the drop remains stationary in a test solution which will be of identical specific gravity with that of the serum being tested. If the specific gravity of the serum lies between that of two copper sulphate solutions, the drop will rise in one and fall in the other, and from the rate of its rise or fall the specific gravity can be estimated. For instance, if the drop rises very slowly in the solution of specific gravity 1·024, and falls rapidly in the solution of specific gravity 1·023, the specific gravity of the serum lies between 1·0235 and 1·024. With practice, specific gravity can be assessed to within 0·0002 with reasonable accuracy. A value of 0·0002 in specific gravity corresponds to less than 0·1 gramme of protein per 100 millilitres of serum as calculated from the formula of Phillips and Van Slyke.

Once the copper sulphate stock solutions have been prepared and their specific gravity has been checked by weighing, it can be seen that many serum protein determinations can be made easily and in a few moments. The Kjeldahl estimation of serum protein, which is the most accurate of the various methods for routine clinical laboratories, takes several hours and involves more manipulations. The advantages of the specific gravity method were therefore obvious if it could be sufficiently accurate for the serum protein estimations of all concentrations which have to be made in a routine clinical laboratory. In these investigations, the Kjeldahl method was taken as the standard of comparison for judging the accuracy of the results obtained by the copper sulphate method.

I. Experimental Investigation of Both Methods.

The protein concentration of 53 specimens of serum, the majority obtained from normal pregnant women, was estimated by both the Kjeldahl and the copper sulphate specific gravity methods. The copper solution was made up by weight, and diluted to the various test solutions according to the directions of Phillips and Van Slyke. The specific gravity of each of these test solutions was checked by comparison of weight with an equal volume of distilled water at the same temperature.

Results.

The results are listed in groups in Table I, and Figure I is a distribution graph constructed by plotting the results obtained by the Kjeldahl method against the results obtained from the same specimens of serum by the copper sulphate method. A considerable discrepancy between the results obtained by the two methods, amounting in some instances to more than one gramme of protein per 100 millilitres of serum, is revealed in this manner.

TABLE II.

Deviations in Specific Gravity Determinations in Repeated Tests on One Specimen of Serum.

Pipettes.	Average Deviation.	Range of Deviation.
A and B ..	0·0003	0·0000 to 0·0033
A and A ..	0·0005	0·0000 to 0·0034
A and C ..	0·0004	0·0000 to 0·0034

II. Further Experimental Investigation of the Copper Sulphate Method.

Because of the discrepancies in results obtained by the two methods, it was decided to investigate the copper sulphate method further. Repeated tests on the same serum were planned, to discover whether results in good agreement could be obtained. In addition, it was thought that the size of the serum drop used for the determination might be important, for in the former experiments Pasteur pipettes were used, and these naturally vary in the size of their dropping outlet. Because of these points, the following experiments were carried out.

Four specific gravity determinations were made on each of 50 specimens of serum chiefly from normal pregnant women, three different Pasteur pipettes being used in the following manner: Test I, with pipette A; Test II, with different pipette B; Test III, with pipette A; Test IV, with different pipette C. On the average about half an hour elapsed between the estimations.

Results.

Pipette A was arbitrarily selected as the standard for a basis of calculation, and the deviation in result between the four estimations on one specimen of serum are classi-

fied in Table II. It can be seen that considerable variations occurred in results from repeated tests on one specimen of serum, and it appears that the difference in size of the pipette used does not account for these variations, since a repetition of the test with the same pipette gives a result just as divergent from the original as repeated tests with different pipettes.

The average deviation in specific gravity between these estimations was 0·0005, which corresponds to a serum protein value of 0·20 gramme per 100 millilitres, a reasonable error in a clinical estimation. However, the maximum deviation in specific gravity was 0·0034, corresponding to 1·4 grammes of protein per 100 millilitres of serum.

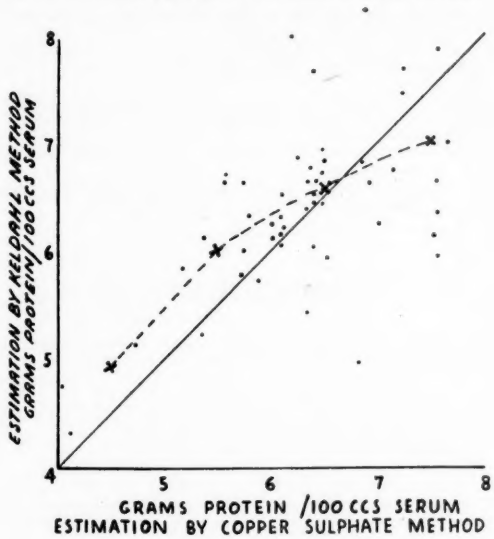

FIGURE I.

Comparison of serum protein values obtained by the copper sulphate and Kjeldahl methods.

Discussion.

When the serum protein values obtained by the copper sulphate method in the first investigation are divided into groups according to the protein content, and these are compared with the corresponding Kjeldahl values (Table I), the greatest agreement occurs when the protein concentration lies between 6·0 and 7·0 grammes per 100 millilitres of serum. Below this value, the copper sulphate method gives a result lower than that found by the Kjeldahl method, and above it, a result higher than that found by the Kjeldahl method. These differences have been averaged for each group, and if this method was used for an estimation the result would have to have these amounts added or subtracted according to the group in which it fell.

The calculation formula is as follows: $P - K\ (Gp - 1{\cdot}0070)$, where P = protein concentration in grammes per 100 millilitres of serum, Gp = specific gravity of serum, 1·0070 = specific gravity of protein-free serum.

Phillips and Van Slyke (1945) give the value of 360 for the constant K, a figure which they reached by taking the mean of numerous investigations, and it is this figure that is used in the line charts from which our results were calculated. Hoch and Marrack (1945), after studying their results, advise the value of 364 for the constant K as an average, but state that the figure should be varied with the result obtained. Our figures confirm this statement.

However, even if the formula is adjusted for different levels of protein concentration, there still appear to be inaccuracies in the method itself. The majority of the specimens of serum used in our tests were obtained from normal pregnant women, whilst serum from normal young men, presumably with a good protein intake, was used for the tests recorded by Phillips and Van Slyke. As the serum protein concentration in normal pregnant women is lower than that in normal non-pregnant women, this would explain some discrepancy of results when the value of 360 is used for the constant K in the calculation formula. It would not be the full explanation, however, for if it were, the discrepancies would always be in the one direction. This is not the case with our results.

In general, a reasonable serum protein concentration value can be obtained in the copper sulphate method by reading off the value from the line charts, and then correcting it according to the average deviations of the groups in Table I. But in our experience, discrepancies amounting to one gramme of protein per 100 millilitres of serum occurred in several instances, and repeated tests on one specimen of serum have been shown to produce a comparable error. This indicates that the method is useless for accurate work and of value only in obtaining an approximate estimate in an urgent case. Even in these cases, the result should be accepted with caution, until an estimation by a more reliable method is completed.

Summary and Conclusions.

1. The serum protein concentration of 50 specimens of serum, the majority from normal pregnant women, was estimated by the specific gravity method with the use of copper sulphate solutions, and by the Kjeldahl method as a basis of comparison.

2. There was a wide divergence of results, in some cases equalling one or more grammes of protein per 100 millilitres of serum.

3. The size of the dropping outlet of the pipettes used was not responsible for the divergence.

4. Repeated tests on the same specimen of serum under similar conditions gave results nearly as divergent from each other as those results compared with the results obtained by the Kjeldahl method on the same specimens of serum.

5. The copper sulphate specific gravity method is considered unreliable for accurate work.

Acknowledgements.

I wish to thank Dr. Vera I. Krieger for advice and encouragement during the work on this paper.

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PHILLIPS, R. A., and VAN SLYKE, D. D. (1945), "The Copper Sulphate Method for Measuring Specific Gravities of Whole Blood and Plasma", Josiah Macy, Junior, Foundation, New York.

Reports of Cases.

A CASE OF INCURABLE PEPTIC ULCER.

By IAN S. HOLLE,
Brisbane.

IN the majority of cases peptic ulceration is adequately treated by conservative medical means. When surgery is required, the accepted method is now subtotal gastrectomy (Maingot, 1948), although vagotomy combined with gastroenterostomy is stated by some schools to produce comparable results (Dragstedt and Woodward, 1951).

However, in some instances, usually from 2% to 5%, the ulceration will recur. This recurrent peptic ulcer can, in most cases, be cured by more radical surgery than was at first used (Doran, 1948; Visick, 1948). There remains the small group in which the tendency to ulceration seems to resist all treatment. It is a case falling into this category that is here described. The history is as follows.

Clinical Record.

On November 4, 1942, a male patient, D.F., then thirty-two years old, was first admitted to hospital with a history of attacks of pain which had begun ten weeks earlier in the right hypochondrium and had latterly moved to the left upper quadrant of the abdomen. Two months previously a cholecystogram and X-ray examination after a barium meal were reported as showing no abnormality. Retrograde pyelography revealed no abnormality. On November 23 laparotomy was performed, and an encysted perforated duodenal ulcer was found. The perforation was closed and the patient was discharged from hospital on January 7, 1943.

On February 4, 1943, he was readmitted to hospital, complaining of vomiting and epigastric pain. X-ray examination revealed a juxtapyloric penetrating ulcer appearing to arise from the first part of the duodenum. The patient settled down with conservative treatment and was discharged from hospital.

On June 23, 1943, he was admitted to hospital, with pain radiating to his back and relieved by food and antacids. An X-ray examination after a barium meal revealed a small lesser curve gastric ulcer and two ulcer craters in the first part of the duodenum. Whilst in hospital, the patient had several large hæmatemeses requiring blood transfusion.

On August 31, 1943, partial gastrectomy was performed. An ante-colic anastomosis was used and more than half of the stomach was removed.

On April 12, 1945, after almost two years free of symptoms, the patient began having epigastric pain, waking him at night, and attacks of vomiting. He then had a very large hæmatemesis.

On June 10, 1947, he had a further severe hæmatemesis requiring blood transfusion.

On September 20, 1947, he suffered yet another hæmatemesis.

On October 10 X-ray examination after a barium meal revealed a large ulcer crater on the lesser curve of the stomach. The stoma was reported as functioning very slowly.

On December 2, 1948, the patient was again admitted to hospital with hæmatemesis.

On October 13, 1949, after being well since his previous admission to hospital, he had a further hæmatemesis. A fractional test meal examination at this time revealed three times the normal amount of free hydrochloric acid in the stomach contents.

On November 29 a further resection of the stomach was performed, with, in addition, an abdominal vagotomy. The stomach was found to be adherent to the liver and to the anterior abdominal wall. A large stomal ulcer was present.

On March 28, 1950, the patient had a hæmatemesis.

On June 5, 1951, he had repeated large hæmatemeses.

On October 4, 1951, laparotomy revealed a large stomal ulcer adhering to and invading the anterior abdominal wall. This was resected together with more stomach, only a small stump of the fundus being left.

On November 1, 1951, the patient had a hæmatemesis.

On December 5, 1952, he was admitted to hospital with a perforated peptic ulcer. At operation a small perforation was found at the site of the anastomosis. A left-sided empyema developed after operation, and he was not discharged from hospital until January 23, 1953.

The patient was last examined on March 2, 1953, and at that time he was well.

Comment.

In the course of ten years this patient underwent two laparotomies for closure of perforated peptic ulcer, and three gastric resections, with one of which was combined an abdominal vagotomy.

The extent of the two last resections was greater than advised by Visick (1948).

The vagal section appeared complete, but may not have been so, because of the variation in the normal anatomy of the vagi below the diaphragm (Jackson, 1949).

This patient illustrates the recurrence of persistent peptic ulceration in spite of very complete medical and surgical treatment over a period of ten years.

Acknowledgements.

I wish to thank Professor N. Sutton for permission to report one of his cases, and Dr. A. D. D. Pye for permission to use Brisbane Hospital records.

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Books Received.

[The mention of a book in this column does not imply that no review will appear in a subsequent issue.]

"The Concept of Schizophrenia", by W. F. McAuley, M.D. (Belf.), D.P.M., R.C.P.S.I., with a foreword by John H. Ewen, F.R.C.P., D.P.M.; 1953. Bristol: John Wright and Sons, Limited. London: Simpkin Marshall, Limited. 9″ × 5½″, pp. 146. Price: 12s. 6d.

The purpose of the book is to estimate present knowledge of schizophrenia, to assess its historical background and evolution, and to indicate the importance of heredity and environment.

"Handwriting Analysis: As a Psychodiagnostic Tool: A Study in General and Clinical Graphology", by Ulrich Sonnemann, Ph.D., with a foreword by Bela Mittelmann, M.D.; 1952. London: George Allen and Unwin, Limited. 9″ × 5½″, pp. 286, with 247 illustrations. Price: 35s.

The foreword states that "graphology can take its place as a full equal in personality diagnosis with other projective methods".

"Enzymatic Concept of Anaphylaxis and Allergy: And the Role of Eosinophils in Anaphylactic Reactions Related to Hormonal Alterations", by Z. Z. Godlowski, M.D. (Cracow), Ph.D. (Edin.), M.R.C.P. (Edin.), with a foreword by A. Murray Drennan, M.D., F.R.C.P.E., F.R.S.E.; 1953. Edinburgh and London: E. and S. Livingstone, Limited. 8½″ × 5½″, pp. 128, with twelve plates in colour and five text figures. Price: 15s.

The author tries "to demonstrate the involvement of the cellular enzymatic system in anaphylactic reactions and to elucidate the role played by eosinophils in anaphylaxis".

"History of the Second World War: United Kingdom Medical Series", Editor-in-Chief, Arthur S. MacNalty, K.C.B., M.D., F.R.C.P., F.R.C.S. "The Emergency Medical Services", edited by C. L. Dunn, C.I.E., I.M.S. (ret.). Volume II: Scotland, Northern Ireland and the Principal Air Raids on Industrial Centres in Great Britain; 1953. London: Her Majesty's Stationery Office. 10″ × 6½″, pp. 504, with 40 illustrations. Price: 50s.

This volume completes the section of the history dealing with the Emergency Medical Services.

"Medical Jurisprudence", by I. Gordon, M.B., Ch.B. (Cape Town), R. Turner, M.B., Ch.B., D.P.H. (Cape Town), and T. W. Price, Ph.D., M.A., LL.B. (Cantab.), B.A., LL.B. (South Africa); Third Edition; 1953. Edinburgh and London: E. and S. Livingstone, Limited. 10″ × 6½″, pp. 1000, with 143 illustrations. Price: 75s.

This book is the successor to the text-book by Rhodes, Gordon and Turner, the second edition of which appeared in 1945.

The Medical Journal of Australia

SATURDAY, OCTOBER 10, 1953.

All articles submitted for publication in this journal should be typed with double or treble spacing. Carbon copies should not be sent. Authors are requested to avoid the use of abbreviations and not to underline either words or phrases.

References to articles and books should be carefully checked. In a reference the following information should be given without abbreviation: surname of author, initials of author, year, full title of article, name of journal without abbreviation, volume, number of first page of the article. If a reference is made to an abstract of a paper, the name of the original journal, together with that of the journal in which the abstract has appeared, should be given with full date in each instance.

Authors who are not accustomed to preparing drawings or photographic prints for reproduction are invited to seek the advice of the Editor.

THE USE AND ABUSE OF BLOOD TRANSFUSION.

ADVANCING knowledge of methods of blood storage and processing of serum and the eagerness of civilians to give their blood enabled military medical officers during World War II to use greater amounts of blood and serum in individual transfusions, and to give them in a much greater variety of conditions than had until then been the practice. As this procedure proved so beneficial, it was only to be anticipated that it would be introduced into post-war civilian practice, with resultant increase in the demand for blood. But the extent of the increase, probably more than tenfold (1000%) in ten years, would have seemed fantastic in 1943. Sudden massive hæmorrhage, whatever its cause, is still, as it was before and during the war, the most urgent and essential indication for transfusion. The treatment of this emergency alone would have caused some increase in demand for blood owing to the growth of the population (estimated to be 20% since 1946) and because of the trend towards quantitatively larger transfusions, adjusted to the assessed blood loss in individual cases. Other factors have, however, also contributed to the phenomenal and still increasing post-war demand, chief among which are: (*a*) the appalling road toll; (*b*) the more ready availability, and hence greater (and valuable) use of blood in obstetric emergencies, for both mothers and babies, and the greater (though less certainly valuable) use in certain forms of anæmia and other blood dyscrasias; (*c*) above all, and accounting for 50% or more of the increased demand, the use of supporting blood transfusion as an almost integral feature of modern surgery, given either before operation to fortify debilitated patients, or during and after it, to offset the shock and blood loss sometimes inseparable from the operative trauma of extensive surgical manipulations.

It is well known that therapeutic measures which are successful usually suffer sooner or later a phase of over-enthusiastic or uncritical usage. This not only may lead to financially undesirable extravagance, but sometimes may also have harmful rather than beneficial medical effects. Thoughtful and challenging articles on this possibility in relation to blood transfusion are beginning to appear in the medical Press, and in one of these, B. Strauss and J. M. Torres state:[1] "While the greater use of blood has produced significant improvement in the management of hæmorrhagic states and in surgical practice, it has resulted in transfusion accidents and disease that have given rise to widespread apprehension." Although this statement indicates that blood transfusion hazards have been recognized, apparently they are sometimes regarded lightly. Strauss and Torres consider that approximately 13% of a series of 290 consecutive transfusions which they analysed were not indicated; they were given, for example, to patients already almost moribund from hopeless conditions, or, at the other extreme, to those with normal blood counts. In addition to the hazards, waste was caused both by the unnecessary transfusions and by requests for blood in amounts 27·3% in excess of that used. Strauss and Torres consider that such excess should not be more than 10% to 15%. They state that although most of the unused blood was eventually returned to the blood bank, it had sometimes in the meantime become outdated or rendered unfit for use through factors such as unsuitable storage conditions.

Transfusion is so urgently and unquestionably life-saving or otherwise so beneficial if correctly used, that when it is really needed any risks involved are minor considerations. It may be for this reason that there appears to be sometimes a lack of realization that it does subject a recipient to certain hazards, the disadvantages of which must, in cases in which it is not undeniably necessary, be carefully weighed against its likely benefit. These hazards to recipients are broadly of two types. The first type includes those hazards inherent in the procedure, which cannot be eliminated by any means known at present. Three may be mentioned. The first is transmission from the donor of unsuspected or undetectable diseases. Of these, homologous serum hepatitis presents a serious problem so far unsolved. Persons seemingly in good health and without suggestive past history can apparently carry the causal agent in their blood. The incidence of homologous serum hepatitis in recipients is stated by Strauss and Torres to have been estimated by different observers as between 0·45% and 1% in those receiving whole blood only and by P. L. Mollison to vary from approximately 1·3% to as high as 11·9% in those receiving pooled plasma or serum.[2] The incidence increases when a large number of blood donations are included in the "pool". In the light of figures such as these, large pools, though technically more convenient, have been superseded by small ones. No satisfactory certain means of destroying the icterogenic agent in blood or serum is yet known, but the risk of homologous serum hepatitis can be avoided by the use of serum albumin fraction if

[1] *J.A.M.A.*, 1953, 151: 699.
[2] "Clinical Aspects of Blood Transfusion", 1951.

available, or of synthetic plasma volume expanders, such as dextran or polyvinylpyrrolidone (all of which can be suitably sterilized) for conditions in which they are suitable substitutes for serum. Malaria, particularly the rare quartan type, is difficult to detect, if latent in a donor. Syphilis is unlikely to be transmitted by stored blood. If, however, blood is collected as an emergency measure immediately before it is given, or if the direct pump method is used as a matter of preference, there is a possible (though in this country slight) risk of transmitting syphilis. It is known that other organisms of diverse kinds may, from time to time, gain access to the blood-stream and persist there for short periods without any obvious harmful eects. It is, however, theoretically possible that a recipient may be susceptible to any such organisms, if transferred from a donor. The second hazard inherent in the procedure is sensitization. Compatibility between the A B O factors of donor and recipient is a *sine qua non* for safety in all transfusions. For those given to girls from infancy onwards, and to women prior to the menopause, compatibility of the Rh factor is also essential. There are, however, other known blood factors, and more may await identification. Fortunately (as it would be well nigh impossible to do) it is not necessary to ensure that these factors are the same in donors and recipients, provided cross-matching tests reveal no incompatibility. But any transfusion may stimulate production of specific immune antibodies in a recipient's blood, the presence of which may make it difficult to obtain compatible donors, should later transfusions be needed urgently. In the case of women such antibodies may cause children of future pregnancies to become victims of erythroblastosis. The third hazard is hæmosiderosis. Multiple transfusions may lead to deposits of iron in liver and other storage organs, which some authorities consider may result in fibrotic changes. The second main type of hazard includes the avoidable risks. Ideally, these should not occur, but their elimination can be guaranteed only by "100% efficiency" at every stage of the long chain of procedures which lead up to a transfusion. At the risk of being accused of stressing the obvious, we must mention them. There must be competence and care in the selection of donors, correct determination and recording of their blood groups, and skilful collection of their blood. The preparation of transfusion equipment must be conscientiously done to ensure that hæmolysis does not occur or contamination with living bacteria or harmful pyogenic organic matter take place. The containers must be correctly labelled, stored under suitable conditions and examined before use for the detection of any deterioration. Close liaison must exist between the laboratory in which the patient's blood group and compatibility tests are carried out, the blood bank and the ward, so that blood of the correct group is requested and dispatched, and after it has reached the ward, is not confused with blood meant for another patient. The transfusionist must have technical skill and specialized clinical knowledge and judgement to enable him to decide whether intravenous therapy should consist of whole blood, concentrated red cells, serum or other colloids, electrolytes or some of each. He must assess the amount to be given and the proper rate of infusion, which must vary according to the condition being treated. (Transfusion should be as rapid as possible if its purpose is to arrest threatened irreversible shock, but it must be given by slow drip to patients with long-standing debility in whom overloading of the circulation may precipitate cardiac failure or pulmonary œdema.) The transfusionist must also be able to assess the significance of changes in physical signs and symptoms and laboratory findings during the course of intravenous therapy, and to recognize and treat any untoward reactions, hæmolytic, pyrogenic, allergic or circulatory.

But human beings are not infallible, the necessary shift work involves changing personnel, some of whom may also be inexperienced trainees, and transfusions are often needed urgently under very stressful circumstances; so that in spite of recognition by blood transfusion services that ceaseless care is such an essential element in their organization, the personal element may occasionally lead to mistakes which entail hazards to recipients. It is, therefore, obvious that both the inherent and the avoidable risks associated with transfusion are such that it is unjustifiable to discount them if conservative treatment can be used to produce the same ultimate benefit. In many types of elective surgery (an example of which is hysterectomy for relief of hæmorrhage and anæmia caused by uterine fibroid tumours), if there is a period on the "waiting list" during which adequate treatment with hæmatinic drugs, particularly iron, can be given, the need for many pints of blood just prior to or during operation may be eliminated. There should almost never be a place for what Strauss and Torres allude to as "cosmetic" transfusion (a term not yet current in this country), which refers to transfusions given to patients with normal hæmoglobin levels, in the vague hope of a general tonic effect. In a somewhat similar category are those given, without any true medical indication, because of pressure by anxious relatives or popular opinion. (An instance is known of a patient being urged by a lay friend to "insist on a transfusion".) Sometimes, too, blood which has been ordered in excess of real need is given on the basis that "as it is here, he might as well have it—another pint or two won't do him any harm". It may be just that last pint which harbours the virus of hepatitis.

As already indicated, blood transfusion plays a large part in contemporary major surgery, in that with its support heroic measures, previously thought impossible, can be undertaken. It would be a welcome and progressive development if such surgery was subjected later to critical "follow up" and if its mortality rate and long-term results were published with reference to the amount and type of transfusion therapy. The sinister statement is sometimes made that "Mr. 'X' is a good surgeon—never uses a Spencer Wells or has a death on the table", and we have the depressing picture painted by Strauss and Torres who declare that "in the operating room, blood transfusion has been employed as a substitute for experience, and avoidable surgical errors have been redeemed by litres of blood". Such use of blood is a grave abuse, and a surgeon who exploits transfusion services, by using them as a substitute for competent hæmostasis and gentle expert handling, is debasing the surgical art.

An indirect abuse of transfusion is the attitude sometimes seemingly present that blood is or should be avail-

able in any quantity, at any time, for any purpose as is water from a tap; this attitude implies also that no thought or help need be given to or interest shown in the recruitment as donors of the relations or friends of those who benefit from their gift, or to the consideration, care and skilled venesection to which donors are entitled. The medical profession, as a whole, must realize the implications and accept its meed of responsibility if its members wish to continue to use blood transfusion on its present scale in everyday civilian practice.

The occasional macabre situation described by Strauss and Torres in which penurious persons, desperate for the price of their next meal, have acted as paid donors, even though so anæmic that, after giving blood at one hospital, they have had to receive it at another, is unlikely to arise in Australia, where the Red Cross Blood Transfusion Service is based entirely on voluntary donors, and measures to safeguard the welfare of donors as well as that of the recipients are regarded as of paramount importance. But it must never be forgotten that voluntary donors give their blood from completely altruistic motives, with confidence and implicit trust that the medical profession will use it skilfully and wisely to save the lives and ease the suffering of stricken fellow human beings. Any suggestion of gross waste or exploitation would give these donors a sense of betrayal by those whom they trusted and respected.

Current Comment.

PROPAGATION OF THE COMMON COLD VIRUS IN TISSUE CULTURES.

EVIDENCE has just been published of the propagation of the common cold virus through ten serial cultures of embryonic human lung. This achievement is reported by C. H. Andrewes and his co-workers[1] at the Common Cold Research Unit, Harvard Hospital, Salisbury, where the problem has been the subject of intensive but hitherto unsuccessful attempts for some years. As yet the only method available for determining the presence of common cold virus in experimental material is by observation of its clinical effect after intranasal instillation in groups of volunteers. Evidence of this kind is the basis of the present report of the propagation of the virus. The objection may be raised that this is a matter of inference only; in principle, the objection is reasonable, but the results quoted are much too strong to be denied. However, such a means of detection is not sufficient for further developments, and it is reassuring to know that Andrewes and his co-workers state that they have every hope that the presence of the virus will be demonstrable in other ways. Cytopathogenic effects on cultures have not yet been seen, but most observations have hitherto been of roller-tube cultures with low-power objectives. There has not yet been time to apply to the problem various methods of microscopy and electron microscopy or many available microbiological teachniques. It is considered that, with demonstration of activity of the virus in cultures by any of these methods, study of the common cold would enter a new phase.

It is interesting to note that since the Common Cold Research Unit began its work seven years ago, 2496 volunteers have taken part in the trials. Exactly half of these were women. Married couples totalled 274. As many as 563 volunteers have paid two visits to the Unit, and 334 have taken part in three or more trials. In a statement issued jointly by the Ministry of Health and the Research Unit at the time when this work at Salisbury was first made public, it is stated that all the many volunteers who have so far taken part in the experiments can justifiably claim a part of the credit for the progress so far achieved. Their continued cooperation is asked for. The work is at a crucial stage, and an adequate flow of human volunteers is necessary for the attainment of the next objective. That objective is the discovery of how to recognize the presence or growth of the virus in the cultures by some way other than the inoculation of volunteers. As the statement points out, all that can be claimed at the moment is that the first step has been taken in the right direction. Nevertheless, the prospects for further progress may be regarded as reasonably good.

[1] *Lancet*, September 12, 1953.

THE ANTICOAGULANT CONTROVERSY.

THE clinical use of anticoagulants has received a number of recent references in these columns. The widespread interest in it springs from the great hopes that it aroused of lessening the morbidity and mortality of several serious medical conditions, of which the most important is myocardial infarction. Yet today, even in the treatment of this emergency we cannot claim to speak with one voice. Henry I. Russek, in an article dealing with various aspects of the management of myocardial infarction, discusses this question of the indications for anticoagulants.[1] When the Committee of the American Heart Association made a special report on the anticoagulant drugs, the matter might have been regarded as settled, but it was obvious that there were questions of statistics involved if we were to avoid the perils of mere opinion, particularly with regard to the patients less severely ill. Russek admits that many observers have confirmed the value of heparin and dicoumarol and drugs of similar action in reducing the incidence of thromboembolic episodes, and thus lowering the mortality due to this group of complications. At present, he states, there seems to be little doubt that anticoagulants have a real place in the treatment of severely ill patients, but it is not so easy to decide whether the unquestionable risks and difficulties attending this method are justified as a routine measure. Some writers state that serious thromboembolism may occur in patients apparently not seriously ill, and that greatly increased invalidity or death may follow as a result. The warning has been sounded again and again that the outlook is unpredictable from the outset of an attack; this is certainly true of an individual suffering from any critical ailment, unless the prognosis is estimated by controlled relevant study of statistics. Russek and others attempted to produce evidence which would help to solve this problem, and compiled a list of prognostic signs of serious import, such as severe or prolonged pain or shock, a history of a previous attack, and purely cardiac signs already familiar as clinical warnings. Series not showing such signs carried a death rate of only 3·1%, whereas the group showing one or more of the serious signs had a rate of 60%. The rates for thromboembolism in these groups were 0·8% and 10·6% respectively. These figures were obtained from 489 patients who were treated without anticoagulants, and analysis of this series did not support the belief that the danger of sudden death was an undue hazard in the cases judged to be more favourable in type. Russek supports the views of those who stress the risks of dicoumarol and similar substances, which are variable in action and may cause hæmorrhage even when full care is taken. Heparin has certain virtues of its own, but for safety it needs proper facilities for biochemical control.

Age has been cited as an indication for anticoagulant treatment, but there are critics who point out that although severe attacks are more common in elderly subjects, the prognosis in a given attack is not substantially altered by

[1] *Am. J. Med. Sc.*, June, 1953.

age. It has been suggested that anticoagulants *per se* may exert a beneficent action in improving coronary circulation, but the evidence in favour of this is doubtful. Sidney Schnur has collected information concerning the value of anticoagulants by studying a series of 1350 patients in several hospitals over a period of ten years.[1] This study is designed to answer certain questions, such as those raised by Russek and others, and also to present statistical objections to some statements in the American Heart Association's report. In his evaluation of the patients' clinical state he has allotted index ratings to various clinico-pathological findings, such as shock, congestive failure and arrhythmias, and also to certain features of the history. This has enabled him to make a quantitative estimate of each patient's degree of illness on his admission to hospital, and examination of this shows that there is a close relation between the pathological index rating and the mortality rate. In one hospital the mortality rate ranged from 8% for the mildest attacks to 95% for the most severe. The average yearly death rate in a given hospital was found to vary with the number of those assessed as seriously ill. Age was found to have little prognostic significance in itself, except in so far as these older people had more severe attacks. The mortality was found to be doubled after seventy-five years of age. The death rates for patients treated with anticoagulants in three hospitals were not altered from the average rate for the previous ten years; so that the adoption of this method does not appear to have altered the rates within corresponding calculated pathological index rates. Schnur thinks that the literature contains many errors in statistical thinking, changes in mortality rates being attributed to altered methods without application of some clinical assessment. He further objects to certain of the Heart Association's conclusions: he points out that random selection was not used in comparing the results of treatment, that there was no assurance that comparisons were made only between groups of corresponding severity, that the clinical evidence for diagnosis of thrombo-embolism was not always satisfactory, and that there was no pathological proof that a difference in mortality rates was attributable to thrombo-embolism. He concludes finally that at present there would be no reason to use anticoagulants for persons mildly ill, among whom the mortality rate is low, in view of the expense and risk, and the difficulty in maintaining an effective prothrombin level. In a random selection of patients receiving anticoagulants 66% were found to be outside the effective range. The seriously ill patients are in a different category. Though proof seems difficult to establish with certainty, there appears to be ample justification for the administration of these drugs to these patients with adequate precautions, quite apart from age. This seems to be the general verdict today. These discussions are at present covering considerable space in medical journals, and indeed in lay journals also, but even if we find the reiteration monotonous at times, the answers to these questions must be found. Myocardial infarction is important to our communities, and we do not want it to rob us of so many useful lives untimely.

THE PATIENT SITS DOWN.

Probably very few doctors ever notice the manner in which their patients sit down after they have entered the consulting room, much less analyse the action. Abraham D. White[2] did, and found that there were four common ways of sitting down: (i) the patient sat down and immediately leaned back in the chair; (ii) he sat down on the edge of the chair; (iii) he drew the chair closer to the desk and sat down on the edge of the chair; (iv) he drew the chair closer to the desk, sat down on the edge of the chair, leaned forward and rested his elbows on the desk. The first of these he describes as "sitting at ease", and the other three as "sitting down ill at ease". He then decided to try to find out whether removing the desk as a barrier between the doctor and the patient would have any effect on the manner in which patients seated themselves. On alternate days he interviewed his patients with and without a desk between the doctor and the patient. The distance between the doctor and patient was approximately constant at all times and an attempt was made to keep all other factors as constant as possible. A total of 166 patients were observed, divided into two groups of 83, interviewed with and without a desk respectively. Of the group interviewed with a desk, nine of the 83 were found to sit at ease. Of the group interviewed without a desk, 46 of the 83 sat at ease. This is a notable difference, and its significance was confirmed statistically. White points out that among the factors that may be expected to affect the situation are the personality of the observer, the personality of the patient, the interreaction of the two personalities, the nature of the patient's illness, and the physical environment of the consulting room. Most of the patients were suffering from cardiac disease and as such formed a "fortuitously homogeneous group". The physical environment of the consulting room was essentially constant. The other influencing factors were largely controlled by the method of investigation. White states that he investigated in only a very tentative and preliminary fashion the influence on the history-taking of the patient's manner of seating himself. He asked a small number of patients how they felt about the absence of a desk between them and the doctor. Each stated that he felt more at ease, or that he could remember details of the illness which had been forgotten but which had been brought back to recollection by the ease and informality of the interviewing situation. This is not surprising. Some impatient practitioners may fear that the cultivation of conditions which help the patient to sit back at ease will encourage verbosity with consequent waste of time, but it is more reasonable to expect that putting the patient at ease will produce a better history in shorter time. One factor in this investigation warrants further comment. It is that of the personality of the observer—that is, of the medical practitioner. White's investigation was, in essence, the observation of his patients' reaction to himself with and without a desk. It would be interesting to know how many other doctors would get similar results with their patients. The investigation itself presents no difficulties. Perhaps some Australian practitioners will take it up.

[1] *Circulation*, June, 1953.

[2] *Psychosom. Med.*, May-June, 1953.

MILK PASTEURIZATION.

The term pasteurization was in common use during Pasteur's lifetime. The process, following Pasteur's original experiments, applied first to wine and beer; later it was extended to milk. In a recent World Health Organization monograph[1] it is defined as "heating milk to a temperature below the boiling-point for a period of time sufficient to kill (*a*) all the common types of pathogenic organisms which may be present in milk, so as to render it safe for human consumption, and (*b*) such a proportion of those adventitious non-pathogenic organisms which may cause spoilage of various types, as to ensure that the milk will keep under all reasonable temperature conditions sufficiently long to enable it to be transported, distributed, and consumed as liquid milk, or utilized for further processing or manufacture". This is the broad definition; details alter from place to place. However, as the monograph states, it seems reasonable to insist that the temperature of heating shall be no higher and the time no longer than is essential to ensure both freedom from pathogenic organisms and a satisfactory keeping quality for the milk. The monograph presents practical advice on how these objects may be attained, recognition being given to the fact that local conditions will determine some matters of detail.

[1] "Milk Pasteurization: Planning, Plant, Operation, and Control", by H. D. Kay, J. R. Cuttell, H. S. Hall, A. T. R. Mattick and A. Rowlands; World Health Organization Monograph Series Number 14; 1953. Geneva: World Health Organization. 9½" × 6¼", pp. 204, with 93 illustrations and 3 tables. Price: 12s. 6d.

Published jointly by the World Health Organization and the Food and Agriculture Organization of the United Nations, the monograph is the work of H. D. Kay, J. R. Cuttell, H. S. Hall, A. T. R. Mattick and A. Rowlands; three of the authors are members of the staff of the National Institute for Research in Dairying at Shinfield in Berkshire. In the introduction to the monograph they point out that to provide any but the smallest centres of population with liquid milk of satisfactory hygienic and keeping quality, and in adequate quantity, the following elements are required: (i) a sufficient farm production, as constant as possible throughout the year, of wholesome raw milk of good keeping quality; (ii) a system of farm or depot cooling, combined with an adequate transport system, so that at all seasons of the year sweet milk of good keeping quality can arrive at the pasteurization plants (which should normally be situated in or very close to population centres) with the minimum of delay; (iii) properly designed and equipped pasteurization plants, housed in suitable buildings and provided with the necessary services, capable of effective processing and automatic packaging of the milk at every season of the year; (iv) a staff of trained operators under scrupulous and competent management; (v) adequate technical and laboratory control of both plant and product; (vi) a well-planned distribution system; (vii) constant and knowledgeable supervision from an outside health authority. A suggested eighth element is the wherewithal among the general population, or in the hands of special organizations, to purchase sufficient pasteurized milk to meet the nutritional requirements of the population or of special groups of it. The monograph is written primarily to bring together, for the use of those persons in health, agriculture and other government departments concerned with health and nutrition, essential modern information on the third, fourth and fifth of the elements listed, with some assistance to those concerned in the seventh element. The information given on this basis is fairly detailed and is concerned in the main with modern processing on a medium or large scale; but Kay and his co-authors state that it must not be concluded that quite small pasteurization units, dealing with as little as 110 gallons (500 litres) of milk per day, should be excluded from consideration by authorities or organizations who wish to meet the requirements for safe milk of quite small centres of population. Such small units can be, and are, effectively used in many parts of the world. The same principles apply to their use as to that of the larger plants, and it is no less necessary for the small than for the larger plants to be properly designed and equipped and those operating them to be properly trained and supervised.

It is assumed in this monograph that most readers will already have some scientific or technical background, but may have only a very general acquaintance with up-to-date pasteurization plants, operational methods and laboratory control. Nevertheless, they may have to take part in the inception and planning of pasteurization schemes, or in legislation concerned with pasteurization. Their duties may include the presentation of modern concepts of pasteurization methods and material requirements both to non-technical colleagues and to others who are uninformed on these matters. It is hoped that the monograph will be helpful in such cases. It is not intended to serve as a text-book, or as a manual for plant operatives, but it is thought that it may be useful at an intermediate stage in the training of the plant foreman or under manager, or the milk laboratory worker.

This is the sort of thing that the World Health Organization and allied bodies do well. With the status that they have and the machinery and resources at their disposal, they can ensure, with certain limitations, a world-wide sharing of the best available knowledge on matters important to the common welfare. Pasteurization is a good example of such a matter. Kay and his colleagues point out that no human activity can ever be above the risk of occasional error; but experience has shown that pasteurization is a reliable shield and safeguard for all milk consumers if, to adequate planning at the outset, are added sound modern plant and equipment, skilled and conscientious management and thorough laboratory control, regularly exercised from the farm to the ultimate consumer. The monograph shows how this can be done. The rest is the responsibility of governments and others on the spot.

CARDIAC MANIFESTATIONS OF POLIOMYELITIS.

For some time now it has been recognized that the myocardium may be involved in poliomyelitis, though the nature of the involvement is not clear, and clinical recognition of the condition may be difficult. A number of clinical and electrocardiographic studies have been published. The most recent is by M. J. Fox, L. Sennett and J. F. Kuzma,[1] who describe the electrocardiographic findings in 189 cases of poliomyelitis and the pathological appearances of necropsy material in 70 fatal cases of bulbar poliomyelitis. Electrocardiographic abnormalities were found in 32% of the cases, the most common abnormalities being *ST* and *T* wave changes. The findings conform, in the main, with those reported by other investigators; certain apparently large discrepancies can be readily attributed to differing criteria of abnormality in the electrocardiogram. Fox, Sennett and Kuzma state that the myocarditis produced by poliomyelitis does not seem to give rise to characteristic electrocardiographic changes. Those seen primarily in the *ST* and *T* waves are transient, being evident during the first seven to ten days of illness and subsiding with convalescence. The data collected in this study suggest that patients with bulbar involvement are no more liable than other poliomyelitis patients to develop electrocardiographic abnormalities. The post-mortem examinations revealed a high proportion of abnormalities; an interstitial inflammatory reaction was evident in over half the cases (38 out of 70). However, in 25 cases it was irregular, slight and easily overlooked, and in 13 it would be assessed as moderate in relation to other forms of interstitial myocarditis. In none was it very severe.

Clinical diagnosis of myocarditis in cases of poliomyelitis is not easy, though Fox, Sennett and Kuzma consider that persistent tachycardia is suggestive if it has no other evident cause. Just the same, the diagnosis remains a clinical problem because of the non-specific characteristics of the electrocardiographic findings. The nature of the myocarditis is as yet obscure. It has been suggested that the mild form is probably hypoxic in origin, whereas the severe form may be due to invasion of the heart by the virus. But Fox, Sennett and Kuzma point out that patients without bulbar involvement, and therefore with nothing to produce hypoxia, may have myocarditis, while conditions known to produce chronic hypoxia, such as advanced pulmonary disease, are not ordinarily associated with myocarditis. It is, of course, conceivable, as they suggest, that the three strains of poliomyelitis virus already recognized may be cardiotropic in different degree. This is, at present, only a matter of speculation. To confirm or refute such an explanation, it would be necessary to ascertain the prevalence of myocarditis in different outbreaks caused by different strains of virus. Investigations along this line would seem worth while, as they offer at least the possibility of a major clue in the understanding of this little understood aspect of poliomyelitis.

AN HONOUR FOR Dr. H. M. HEWLETT.

At the last annual meeting of the Faculty of Radiologists of Great Britain, Dr. Herbert M. Hewlett, of Melbourne, was elected an Honorary Fellow of the Faculty. Dr. Hewlett's many friends will be pleased to learn of this signal honour.

[1] *Lancet*, August 15, 1953.

Abstracts from Medical Literature.

PÆDIATRICS.

Chair for Infants with Gastro-Œsophageal Incompetence.

EILEEN E. HILL (*Lancet*, July 11, 1953) states that many types of chairs are made to overcome the difficulty of keeping tiny infants in a sitting position, a position which it is becoming more important to procure with the recognition of its efficacy in the treatment of gastro-œsophageal incompetence. To overcome difficulties of cost and delay in construction, the author has devised a plaster of Paris chair, using a large round tin as a support and mould. The method of making the chair is described in detail.

Trigger Thumb.

J. WARREN WHITE AND WILLIAM E. JENSEN (*Am. J. Dis. Child.*, February, 1953) report nine cases of trigger thumb in seven children. They state that there was a probable hereditary background in all cases, and in two cases an hereditary influence was definite. They point out that the condition may be present from birth onwards, but will probably not be recognized until the child begins to use his hands to grasp objects. The diagnosis is relatively simple when the condition is recognized. The treatment is surgical incision of the thickened tendon sheath of the *flexor pollicis longus* muscle. Results of treatment are described as gratifying.

Serum Levels of Penicillin.

N. N. HUANG AND R. H. HIGH (*J. Pediat.*, June, 1953) assayed serum penicillin levels in children and infants after administration of two preparations of penicillin for oral use and two for parenteral use. All preparations were given in single doses of 10,000 units per pound of body weight. Higher and more sustained levels were found in premature and newborn infants. Only minor differences were observed after oral administration of potassium penicillin-G and procaine penicillin. Oral administration produced levels of 0·03 unit per ml for a minimum of six hours in premature and newborn infants, for four hours in infants up to two years of age, and for two hours in those over two years of age. Levels six hours after intramuscular administration of potassium penicillin were comparable to those after oral administration except in the youngest newborn infants. After procaine penicillin was given intramuscularly high sustained levels were obtained for six hours and detectable levels were often found at the end of twenty-four hours.

Treatment of Enterobiasis with "Diphenan", "Egressin" and Gentian Violet.

R. C. JUNG AND P. C. BEAVER (*Pediatrics*, June, 1953) followed threadworm infestation in children by means of the cellulose-adhesive tape technique, after which the children were given courses of treatment and the condition was again followed. "Diphenan" and "Egressin" were not found effective in treatment. A seven-day course of keratin-coated gentian violet pills produced cures in at least four-fifths of 33 heavily infested children. The authors state that investigations of remedies in this condition yield more conclusive results if conducted on selected patients whose cure rate is more or less predictably low.

Rickets, Deficiency of "Alkaline" Phosphatase Activity and Premature Loss of Teeth.

E. H. SOBEL, L. C. CLARK, R. P. FOX AND M. ROBINOW (*Pediatrics*, April, 1953) describe a patient with bony deformities and premature loss of teeth. This infant had an abnormally low plasma alkaline phosphatase activity. The calcium and inorganic phosphorus content of the serum was normal. X-ray films of bones and teeth showed deficient mineralization of these structures. The architecture of a rib was consistent with rickets. Vitamin *D* in large doses did not produce healing. The father had a low alkaline phosphatase activity, and similar patients are mentioned. The authors suggest that a condition indistinguishable from rickets may be produced by disturbance of alkaline phosphatase activity.

Aspiration Lung Puncture in the Diagnosis of Idiopathic Pulmonary Hæmosiderosis.

S. S. GELLIS, J. L. D. REINHOLD AND S. GREEN (*Am. J. Dis. Child.*, March, 1953) state that idiopathic pulmonary hæmosiderosis is a rare disease occurring almost exclusively in children. The clinical picture consists of recurrent attacks of fatigue, cyanosis, fever, pallor and increasing dyspnœa, which usually occur suddenly and in association with an iron-deficiency anæmia. Coughing, vomiting, hæmatemesis and melæna are common symptoms. The attacks may last a few days, or a subacute or chronic phase may supervene. Right-sided heart failure occurs. X-ray films of the lungs usually show mottled hilar shadows and diffuse speckling in the peripheral lung fields. In the authors' case aspiration lung puncture revealed macrophages loaded with hæmosiderin. They suggest that in patients with iron-deficiency anæmia of obscure origin associated with pulmonary changes, gastric washings and sputum should be examined for macrophages containing hæmosiderin. If the results of such examinations are negative, aspiration lung puncture should be considered.

Recurrent Parotitis in Children.

H. E. JONES (*Arch. Dis. Child.*, June, 1953) states that recurrent parotitis in children is usually mistaken for mumps until several attacks have occurred. Recurrences need not always affect the same side. When the disease is active, muco-purulent saliva can nearly always be expressed from Stensen's duct. Diagnosis may be confirmed by sialography, which shows dilatation of the finer ducts. In the majority of cases α hæmolytic streptococci are grown from the duct contents, pneumococci are grown in a few, and both organisms in the remaining cases. Septic foci should be treated when found in the mouth, and massage over the gland may help abort attacks. Parenteral administration of penicillin, in the usual dosage at least, does not prevent recurrences, but about a week's daily instillation of penicillin into the duct procured long remissions or milder attacks.

Purpura in Infants and Children.

D. H. CLEMENT AND L. K. DIAMOND (*Am. J. Dis. Child.*, March, 1953) have reviewed 140 cases of purpura met with in their clinic. The ratio of those with thrombocytopenia to those without thrombocytopenia was 2:1. Approximately two-thirds of their patients suffered the onset of purpura concomitant with, or shortly after, the onset of an acute infection. In the majority the infection was a respiratory one. It was found that 28·6% had family histories of allergy, and 19·3% had personal manifestations of allergy. The authors consider these facts to be compatible with an hypothesis that a number of both types of purpura represent a reaction to a bacterial antigen in a hypersensitive patient, resulting in damage to the platelets, capillaries or megakaryocytes. Non-thrombopenic purpura in children is almost invariably a benign disease, though a few of the affected children have longer illnesses characterized by azotæmia, hypertension and considerable renal involvement. In the authors' series all patients of the last-mentioned group also recovered completely. Thrombopenic purpura in children the authors also consider often to be an acute self-limited disease.

The Management of Exomphalos:

R. W. SMITHELLS (*Lancet*, August 29, 1953) reports a case of recovery in an infant with exomphalos without an intact membranous covering. He states that the main hazards for an infant with exomphalos are infection while the viscera are outside the abdomen and excessive intraabdominal pressure after they are replaced. This pressure may lead to regurgitation and asphyxia or to intestinal obstruction. The prognosis depends on the presence or absence of an intact membrane, on the size of the exomphalos and on the general condition of the infant. The author discusses methods of management.

ORTHOPÆDIC SURGERY.

Injuries of the Extensor Tendon at the Distal Finger Joint.

D. R. PRATT (*J. Bone & Joint Surg.*, October, 1952) states that mallet finger from injury to the insertion of the extensor tendon of the finger is the most common of all tendon ruptures. The problem is to restore the continuity of the extensor apparatus at the distal joint of the finger. Complete recovery is possible only if the end of the retracted tendon is accurately approximated to the raw area of bone on the terminal phalanx. The extensor tendon here, not being in a sheath, will heal well if its ends are together. This is accomplished by hyperextension of the distal joint and flexion of the middle joint. If splinting of the finger in this position is started within a week after the injury and is maintained for five weeks, function will be preserved. If the treatment is instituted after a week or two from the injury or if the position is unsatisfactorily maintained, the tendon will heal in a lengthened con-

dition, thus necessitating surgery. The author has used a method of internal splint fixation in a series of 12 cases. The finger is held with the distal joint in full hyperextension and with the middle joint in 60° of flexion. A stainless steel Kirschner wire of medium calibre is drilled from the tip of the finger longitudinally into the distal phalanx. The wire passes through the axis of the distal phalanx and crosses the hyperextended distal joint through its dorsal half, thus avoiding the main articular surface of the middle phalanx. It then penetrates the middle phalanx and, as the middle joint is held in about 60° of flexion, the wire passes entirely volar to the middle joint. If the point of the drill emerges centrally on the dorsum of the middle third of the proximal phalanx, the wire will have missed the flexor tendons and will lie between them and the joint. If the original wire is not in the desired position, a second wire is inserted in the correct position before the first wire is removed. By leaving the first wire in place, the author avoids difficulty with the tiny hole left if the first wire is removed before redrilling. The wire is then withdrawn so that its point is just palpable under the skin on the dorsum of the proximal phalanx. The distal end is then cut off just beneath the skin of the finger tip. Thus the wire is completely buried; it can be easily removed from the tip of the finger. Complete immobilization in the desired position was obtained in all cases. Six were fresh injuries which required immobilization only. Full extension was restored after five weeks of splinting. In the other cases, the internal-wire splint was used in conjunction with an operative procedure.

Arthrodesis of the Ankle Joint.

J. S. BARR AND E. E. RECORD (*New England J. Med.*, January, 1953) state that arthroplasty of the ankle joint has, with an occasional exception, yielded disappointing results, and that this procedure is rarely to be recommended. Arthrodesis, on the other hand, gives excellent results and is useful in a wide range of affections of the ankle. Pain due to intraarticular lesions is relieved, deformity and instability are corrected, and the compensatory mobility of the subtalar and mid-tarsal joints permits a surprisingly free range of foot motion after fusion of the ankle joint. The authors reviewed 55 feet in 50 patients operated upon in a five-year period. Poliomyelitis (23 cases), old fractures of the ankle with traumatic arthritis (11 cases), and peripheral nerve or root damage (six cases) were the most common ætiological diagnoses in this series. The authors state that it is essential for adequate exposure of the whole ankle joint to be obtained, so that all articular cartilage including that of the malleoli can be removed. They advise two skin incisions, one on either side of the ankle. After removal of all cartilage the bony surfaces are shaped so as to produce an accurate fit, and a graft cut from the tibia is placed across the joint line. Additional bony chips are packed in the margins of joint, the wound is closed in layers, and the ankle is immobilized in a plaster cast extending from the toes to the groin with the knees flexed about 20° and the foot in the pre-selected position. The foot should be in neither the varus nor the valgus position, and it is a serious error to allow the foot to become laterally displaced. The best functional results have been obtained when the position of plantar flexion is between the limit of an exact right angle and 15° of plantar flexion. The portion of the cast above the knee is discarded in about six weeks, a walking heel is then applied to the cast and the patient is allowed full weight-bearing as symptoms permit. The walking cast is usually removed ten to twelve weeks after operation.

External Irradiation and Osteogenic Sarcoma.

R. C. TUDWAY (*J. Bone & Joint Surg.*, February, 1953) discusses the treatment in 33 cases of osteogenic sarcoma, eight of which were osteolytic and 25 osteoblastic. Eight of the patients have survived for two years or more after treatment—all from the osteoblastic group; four of these have survived for five years or more. There were no survivors from osteolytic tumours. The distinction between osteoblastic and osteolytic types is based on the radiographic appearances. The author considers that osteogenic sarcomata can be graded by histological methods as Grade 1, 2 or 3, in an ascending order of malignancy. The method is applicable to both polyhedral and spindle-celled types. In this the most important feature was the degree of nuclear activity, as estimated by the mitotic ratio (the ratio of the total number of tumour-cell nuclei counted to the number found to be in mitosis). The following ranges were found: Grade 1, mitotic ratio greater than 400:1; Grade 2, mitotic ratio between 400:1 and 100:1; Grade 3, mitotic ratio less than 100:1. In Grade 1 cases a long survival period was the rule, and the five-year survival group was nearly coincident with the Grade 1 cases. The author believes that there is a group of osteogenic sarcomata in which the prognosis is better than average. But it is not a clear-cut group. It may be indicated by an atypical clinical history, in which at first the symptoms and appearances favour an inflammatory lesion of the bone; or it may be indicated by an indefinite radiographic picture, which again resembles that of an inflammatory condition or other benign change within the bone. This group of atypical osteogenic sarcomata may possibly turn out to be separable from the others as a distinct variety, just as primary reticulosarcoma of bone has been separated from Ewing's tumour or classified as an atypical Ewing's tumour. There is, however, no pathological evidence of such a distinction so far. With the following conditions patients do badly whatever the treatment: tumours of Grade 3 histology (mitotic ratio less than 100); tumours of Grade 2 histology with pre-existing bone abnormality; tumours of patients in the older age group (over forty or fifty years); tumours of the axial skeleton, when adequate treatment is impossible and the diagnosis may be late; most osteolytic tumours. The author makes the following recommendations: (i) Deep X-ray therapy in high dosage, followed by local resection, should be given serious trial especially for tumours in the upper limb, in the group with atypical clinical or radiographic signs or histological appearances resembling those of inflammatory lesions, with Grade 1 histological appearances and in the young. (ii) Deep X-ray therapy followed at once by amputation should be used for osteogenic sarcoma if local resection would leave a lower limb more unstable than an artificial leg or if response to X-ray therapy is poor. (iii) Deep X-ray therapy alone should be used if the patient is unsuitable for or refuses any operation, and palliatively, if metastases are present or the tumour is too advanced, or the patient is not fit for radical treatment. (iv) Amputation alone should be used palliatively, for pain or fungation, when X-ray therapy has failed to relieve, or is not readily obtainable. (v) Biopsy and histological grading must be performed in every case; a histological diagnosis is most important.

Intramedullary Fixation in Hand Fractures.

F. H. VOM SAAL (*J. Bone & Joint Surg.*, January, 1953) has operated increasingly on patients with simple fractures of the hand or fingers to save the patient money, time and function. He states that also in treatment of malunion and in reconstruction, the intramedullary pin has obvious advantages; for fresh simple fractures, treatment by pinning has been routinely used if the fracture was displaced or if it was important to the patient to be able to use his hand immediately, as is frequently the case when the patient is self-employed. With compound fractures, the indications are the same as those for any other form of internal fixation. If the wound can be made surgically clean within four hours of the injury, pinning may be used. Amputated fingertips are made more secure by pinning with a needle, which is more readily inserted into the tip of the phalanx than a Kirschner wire. Fractures of the middle and proximal phalanges are fixed by inserting a needle or a Kirschner wire from the distal end of the involved phalanx through the middle of the extensor tendon sleeve at the end of the joint. At this point the tendon is thinnest. The pin must be inserted with the joint flexed at 90° to allow flexion of the finger afterwards. The end of the wire which protrudes through the skin is bent to a right angle in order that penetration of the joint may be prevented. In from four to seven weeks the wire or wires are removed. After the pin has been removed full extension is usually regained in from two to three weeks. This method of treatment is not suitable for use in the uncommon oblique fracture of a phalanx. Intramedullary fixation in the management of fractures of the metacarpals allows the patient to continue at work in almost all jobs except those in which the hand must get wet. Simple fractures of one metacarpal can be blindly reduced and pinned; but, if the fractures are at all comminuted or are multiple, open reduction is far simpler. The author concludes that intramedullary pinning provides adequate fixation for selected fractures and in reconstructive surgery and permits the usual rate of healing. Its great advantage lies in the preservation of function and in the reduction in the cost of treatment and loss of income. Approximately 40 patients have been operated upon, with satisfactory results. Particularly impressive is the complete lack of any need for rehabilitation of the hand or fingers.

Special Articles for the Clinician.

(CONTRIBUTED BY REQUEST.)

LXXXIII.

THE UMBILICUS OF THE INFANT.

THE umbilicus of the infant is a no man's land which passes from the obstetrician usually to the nursing staff of a maternity hospital, then to the baby health centre and back to the pædiatrician or surgeon with little continuity of observations. With the present upsurge of interest in the new-born, more interest is being taken in the umbilicus by the pathologists as a site of entry for organisms and by the resident medical officers as a transfusion route, and the physiologists are taking more interest in the adjustments that take place in all systems of the new-born infant after the tying of the cord. Surely it is only a matter of time before the psychiatrists realize the vital importance of this last obvious physical sign of the infant's dependence on its mother.

The baby is a parasite on its mother until it is born, but with the division of the cord a new individual takes life; it has to breathe in its own oxygen, ingest its own food, dispose of its own waste products and maintain its own body temperature. The circulatory system probably has the greatest adjustment to make with anatomical changes in the heart as well as the removal of much of its vascular bed in the cord and the placenta; but the syndromes of great interest to all pædiatricians are those arising from the adaptation of each system to individual existence.

Why Tie the Cord At All?

Animals do not tie the cord; but they are not anæsthetized during labour, and they leave a long stump after pulsation ceases. Otherwise, it is probable that one could treat the human cord with as little respect, provided one did not mind losing the poorer physical specimens and those damaged at birth or born prematurely; after all, in the animal kingdom these are of little significance. Perfusion experiments indicate that the most potent stimulus to contraction of the umbilical vessels is the raised oxygenation in the umbilical arteries that follows respiration in the infant. External irritation appears to be the next most important factor; clamping and cutting both stimulate contraction, as does a drop in environmental temperature and exposure to air. The mechanism of clotting appears to have no importance in the initial closing of the vessel, and it may be fifteen or twenty minutes after delivery before clotting occurs in the umbilical vein. It has been demonstrated that asphyxia delays this clotting by reduction of the blood prothrombin level.

When Should the Cord be Tied?

There has been much discussion and disagreement as to whether the cord should be tied as soon as the child is delivered or left until pulsation ceases. Whatever school one belongs to, it does seem that in the neo-natal period there is no clinical difference in the children. However, it has been demonstrated conclusively by many observers that at the time of birth the placental circuit contains 125 to 150 cubic centimetres of blood, and tying of the cord as soon as the baby is delivered while strong pulsations are still present will deprive the baby of 100 cubic centimetres of blood or more—a considerable amount, compared with its blood volume of about 310 cubic centimetres in the first few days of life. De Marsh Windle and Alt have shown that three days after delivery the blood volume is still greater in those cases in which pulsation has ceased before the cord is tied. The hæmoglobin and iron stores in the child will also be reduced by early tying of the cord. Not only does it seem unphysiological to tie the cord early, but it is also likely to cause anæmia in the infant. In Cæsarean section, the babies can be shown to develop anæmia within three months, and it has been recommended that the cord should be milked before being tied. This raises the hæmoglobin value by 8·5% and the number of red cells by 12·5% and appears to benefit the child clinically. It has been argued that the baby may become cold through the delay, and that it is important to get the shocked baby into a warm cot and administer oxygen; but it seems that these are difficulties that can be overcome, and that the only absolute indications for early tying of the cord are the presence of Rh agglutinins in the blood, and obstetrical difficulties, such as twisting of the cord round the neck.

Local Treatment of the Stump.

Method I.

The orthodox procedure is to tie the cord two inches from the umbilicus and cut it. The cord is religated in several hours, dressed with talc and zinc oxide powder or a starch and boracic dressing, covered with sterile lint and binder and dressed daily with spirit and powder (sterile). The cord is kept dry, even when the child is bathed. It is obvious that the abovementioned treatment means undesirable handling of the open wound, and in the hospital atmosphere there is risk of contamination with ***Staphylococcus aureus,*** which is prevalent in hospitals; but if an aseptic technique is used in the dressing, this method would appear safer than leaving the cord uncovered.

Method II.

The cord is clipped about an inch from the umbilicus with a metal clip, and cut; it is left without being covered or dressed and kept dry. This method would appear very satisfactory in small maternity units or single rooms, or when delivery takes place at home; but in large hospital nurseries it seems somewhat risky.

Method III.

The cord is tied at birth, a two-inch stump being left; the child is then left for three or four hours unbathed and wrapped in a sterile shawl. The cord is then retied three-quarters of an inch from the umbilicus and cut, collodion is poured over the stump, the raw area being so sealed; the wound is left without being dressed until the cord separates. This means less handling of the baby, less risk of infection and less nursing time. It is also desirable that the baby should not be bathed until the cord has separated.

Normal Progress.

The umbilical cord contains two arteries that are contractile and lie in a loose sheath of connective tissue, one umbilical vein that is not contractile and has no connective tissue sheath, rudimentary allantois, the remnant of the omphalo-mesenteric duct and Wharton's jelly surrounded by an amniotic covering. The vessels are patent for twenty to twenty-five days until the thrombus has organized, when they gradually become fibrous cords. The vein becomes the *ligamentum teres* and the *ductus venosus* the *ligamentum venosum.* The cord separates by dry gangrene about the fifth day with some active reaction of polymorphonuclear leucocytes where separation occurs, leaving a small granulating ulcer which is soon covered by epithelium hidden in the normal navel. In some instances the ulcer is superficial and leaves a flat scar, the so-called amniotic navel, and in others there is so much reduntant skin that it may be thought to be a hernia unless carefully examined. It is not uncommon to see a large granuloma, and some believe that this is related to the amount of Wharton's jelly; but it is more often regarded as evidence of infection.

Infections of the Umbilicus.

The healing umbilicus is a potential site of entry for infecting organisms that must never be overlooked. With institutional midwifery and the greater risk of cross-infection, particularly by staphylococci, supervision of the umbilicus becomes even more important. Morison has shown that infection is most likely to enter through the periarterial adventitial tissue or through the necrotic lumen of the artery, and usually occurs in the first few days of life, as with the formation of granulation tissue invasion by organisms is less likely to occur. However, the risk of infection is not entirely removed by separation of the cord, as it may be a month before the thrombus has organized and the remnants of fœtal vessels become obliterated. It is therefore obvious that with the present tendency to discharge patients from hospital as early as the fifth day after confinement, much minor and even major umbilical sepsis may be overlooked.

It is emphasized that the severity of the local reaction at the umbilicus is no indication of the extent of the lesion; in fact, it may be said that the more offensive and purulent the umbilicus, the better the local reaction and the less serious the general reaction. The hæmolytic streptococcus with its lytic properties can enter by the umbilicus and cause fatal septicæmia with no local reaction. Cases have been reported of extensive liver infection and interstitial hepatitis, with no local lesion at the umbilicus.

As an indication of the gravity of the risk of infection, it has been shown in a maternity hospital with a high standard of nursery care and asepsis that over 50% of infants were carrying hæmolytic *S. aureus* on the umbilicus by the time

the cord separated. This also serves to show that the isolation of pathogens from swabbings from the umbilicus does not indicate umbilical infection, but merely the presence of a potentially dangerous organism and the inadvisability of early circumcision. Hæmolytic *S. aureus* is the commonest infecting organism, but *Bacillus coli communis* is not uncommon. Hæmolytic streptococcus is now comparatively rare; *Proteus vulgaris, Pseudomonas pyocyanea* and the pneumococcus all occur. Tetanus is suspected only from general symptoms, such as convulsions or trismus, and the organism can be grown on culture from the umbilicus. Diphtheria, gas gangrene and gonococcal infection occasionally cause umbilicus sepsis. It is often possible to recognize the organism clinically; *B. coli communis* and *P. vulgaris* cause offensive purulent lesions, hæmolytic *S. aureus* causes lesions varying from no local manifestation to extensive cellulitis. In the absence of local reaction, infection should be suspected in any baby that is lethargic and has a sudden loss of weight, and in any baby that is jaundiced. Many a patient with umbilical sepsis has suffered silently under the misleading and dangerous label of physiological jaundice, and if every jaundiced baby received more attention in relation to its diagnosis and management, many mothers would have a less worrying first month.

Treatment is determined by three factors. The first is the general condition of the baby. When local umbilical infection is present, if the baby is taking fluids well and has not had more than average loss of weight, looks well and is not severely jaundiced, the infection may be assumed to be well localized and local treatment alone is successful (for example, the four-hourly application of spirit dressings). The second factor is the prevailing bacteriology of the nursery infection. For example, if there has been any hæmolytic streptococcal infection, penicillin should be used parenterally, and when there has been an increase in staphylococcal infections, antibiotics are usually needed—aureomycin if penicillin-resistant organisms have been occurring. The third factor is the result obtained on culture of material from the umbilicus. Specific infections, such as tetanus, diphtheria, gas gangrene and hæmolytic streptococcal infection, require specific treatment; but the average hæmolytic *S. aureus* and *B. coli communis* infections respond well to local treatment.

Too liberal a use of antibiotics is to be condemned. Even if the baby has general symptoms, cot feeding, no bathing, attention to fluid intake and local treatment are often enough. However, persistent jaundice and lethargy, or evidence of extensive skin infection (pustules, abscesses or pemphigus) are indications for the use of antibiotics. Severe local reaction—for example, purulent lesions which may go on to peritonitis and liver abscess, or gangrenous omphalitis—require antibiotics. As babies do not die from mild umbilical infection, little is written about the liver lesions that accompany them. Multiple liver abscesses, peritonitis and septicæmia are risks known to everyone; but interstitial hepatitis and the areas of liver necrosis are recoverable and not so generally recognized as clinical entities; nor is it generally realized that the umbilical granuloma is usually secondary to infection and is often followed by a small umbilical hernia.

Umbilical Hæmorrhage.

Severe and fatal hæmorrhage may occur within a few hours of delivery, from shrinking of the cord and inadequate clotting often due to anoxæmia. Routine checking and retying of the cord eliminate this risk. Hæmorrhage occurring within the first three days is often the manifestation of hæmorrhagic disease and responds to vitamin *K*, five to 10 milligrammes given by injection, and local dressing with adrenaline or "Oxycel" gauze. After the third day bleeding is usually due to trauma from pulling on the cord, or more often to sepsis, and the steady ooze may be difficult to control, though local treatment, as above, is usually effective.

Developmental Abnormalities.

Exomphalos occurs when the mid-gut fails to return to the abdomen and may protrude in varying degrees through the umbilical opening, being covered only by peritoneum. The treatment is surgical, but minor degrees respond to twisting the cord gently, milking back the contents and applying strapping. This is left in place for two weeks (Denis Browne).

True umbilical hernia may contain bowel or omentum, protrudes through the centre of the umbilicus, and is completely surrounded by a fibrous band. It has a natural tendency to spontaneous cure, and operation is rarely necessary, and should probably never be performed before the child has reached the age of eighteen months. The treatment of choice is strapping after the umbilicus is completely healed and dry (often not for six weeks). Zinc oxide adhesive strapping (not elastic) should be used transversely with the skin folded over the hernial orifice. Cotton-wool pads and coins should not be used. If the skin is irritated by strapping, *Tinctura Benzoini Composita* will sometimes relieve it. Strapping usually stays in place for two weeks and is renewed until the hernia disappears.

In semi-umbilical hernia the fibrous ring is incomplete, part of the hernia protruding through the *linea alba*. It is often associated with *diastasis recti* and occurs most frequently in premature babies. This type of hernia does not tend to spontaneous cure, and though the treatment with strapping is carried out as above, operation is usually necessary eventually. Denis Browne recommends three years as the usual age for operation; but in practice one occasionally sees babies who cry a lot, and in whom the hernia is increasing in size, and operation may be advisable in the first year.

Neither type of umbilical hernia is liable to strangulation, and before surgery is contemplated conservative measures should be tried with patience. Surgery in this area often produces a profound degree of shock.

Meckel's diverticulum results from a patent omphalomesenteric duct and may cause lesions of varying types—fæcal fistulæ, opening of the umbilicus to a blind pouch connected with the bowel or encysted in the fibrous band. The treatment is surgical.

Patent urachus occurs when the connexion between the bladder and the umbilicus persists and a urinary fistula results. Treatment is surgical and usually satisfactory.

Umbilical polypus consists of intestinal tissue. It is bright red with a tendency to bleed. It is to be distinguished from the umbilical granuloma, which responds to local treatment with spirit and copper sulphate. Treatment is by sclerosing measures—for example, the application of silver nitrate or diathermy.

Tumours of the umbilicus are rare. Angioma, teratoma, dermoid and myosarcoma have all been described. Cyst remnants also occur.

Use of the Umbilical Vein for Transfusions and Collecting Blood.

Transfusions can be given into the umbilical vein with safety only within the first twenty-four hours after delivery, owing to thrombus formation. Exchange transfusion should be given as soon after birth as possible to be of maximum value. This makes the assessment of the baby with hæmolytic disease imperative at birth. The examination of cord blood has greatly assisted in this. Blood is collected from the placental end of the cord as soon as it is tied, and the following investigations are now routine procedures when the mother has agglutinins: serum bilirubin estimation (normal, under 2·0 milligrammes per 100 cubic centimetres). hæmoglobin estimation (normal, 17 to 18 grammes per 100 cubic centimetres); examination of a blood film (normal, four nucleated reds per 100 nucleated cells), a Coombs test, and blood typing. The results of these investigations, together with the baby's clinical condition, now make early assessment of the prognosis and determination of treatment fairly accurate. Other tests for which cord blood is conveniently collected are a Wassermann test (which will be the same as the mother's), and a blood sugar determination in the case of a diabetic mother, when it is important to determine whether hypoglycæmia is present in the child. There is a wide range of normal (80 to 120 milligrammes *per centum*), and figures as low as 50 milligrammes *per centum* may occur in normal babies (55 to 75 miligrammes *per centum* being taken as average figures for the baby in the first two days).

Exchange transfusion is a comparatively safe method in careful hands and no more dangerous than simple transfusion. The use of 500 cubic centimetres of blood probably effects an 85% to 90% exchange. The following precautions should be observed. (*a*) A period of at least three hours is necessary, or the risk of shock and cardiac failure is increased. (*b*) The baby must be kept warm. (*c*) Polythene tubing should be used so that careful watch can be kept for air bubbles.

When one is considering the results of pathological tests carried out on cord blood, it is important to know the normal values and to realize that they often differ from those of blood from the baby. The most often misinterpreted is the hæmoglobin estimation, which is a simple test that anyone can perform; but if one fails to realize that the normal cord hæmoglobin value is 17 or 18 grammes *per centum* and that the baby's hæmoglobin value is 19 or 20 grammes *per centum* in the first twenty-four hours, severe anæmia in the baby may be overlooked. The practice of reporting hæmoglobin

values in percentage of normal cannot be too strongly condemned.

Conclusion.

The umbilicus of the infant presents many opportunities for research. The literature is incomplete, and one cannot see much of new-born babies without realizing that the problems presented by umbilical infection and the physiological syndromes of adaptation at birth are as yet far from solution.

CLAIR ISBISTER,
Sydney.

British Medical Association News.

ANNUAL MEETING.

THE annual meeting of the Queensland Branch of the British Medical Association was held at British Medical Association House, 225 Wickham Terrace, Brisbane, on August 22, 1953, DR. T. V. STUBBS BROWN, the President, in the chair.

MINUTES.

The minutes of the previous annual general meeting held on September 26, 1952, parts one and two, were read and confirmed.

REPORT OF THE COUNCIL.

The annual report of the Council for the year ended June 30, 1953, copies of which had been circulated to members of the Branch, were taken as read and adopted on the motion of Dr. H. W. Horn, seconded by Dr. F. W. R. Lukin. The report is as follows.

The Council has pleasure in presenting the fifty-ninth annual report of the work of the Branch for the year ending June 30, 1953.

Membership.

The membership of the Branch is 1035, *plus* 7 honorary life members, as against 959 and 7 honorary members in 1952, making a total gain of 76. There are also 110 honorary associate members, 39 of whom were elected this year. Forty-five honorary associate members were elected to full membership on graduation.

The gains were: new members, 85; transfers from other Branches, 37; members reinstated, 17. The losses were: members transferred from Branch, 33; resignations, 2; struck off, 18; deceased, 10.

The following, by virtue of their fifty years' membership of the British Medical Association, have become honorary life members: Dr. A. B. Carvosso, Dr. H. R. Cope, Dr. J. A. Goldsmid, Dr. W. Hoare, Dr. T. A. Price (also Honorary Vice-President of the Branch), Dr. Woodburn Stevens and Dr. Eleanor Bourne.

Obituary.

We regret to record the deaths of the following members: Dr. A. C. Ward, Brisbane; Dr. D. A. B. Carter, Ipswich; Dr. L. Lofkovitz, Brisbane; Dr. Joyce S. Stobo, Brisbane; Dr. H. A. Sundstrup, East Willoughby, N.S.W.; Dr. H. B. Skinner, Rockhampton; Dr. W. L. Fothergill, Brisbane; Dr. A. G. Anderson, Brisbane; Dr. E. W. Kerr Scott, Brisbane; Dr. Jean S. Stobo, Kingaroy.

Meetings.

In addition to the annual meeting, ten general meetings of the Branch were held, including two clinical meetings. The average attendance at the general meetings was 85. There was also one special general meeting held on May 6, 1953, at which Mr. W. S. McNary, Chief Executive Officer of the United States Blue Cross Association, addressed members concerning Medical Benefits Schemes.

Council.

Fourteen meetings of the Council were held to June 1, one being a special meeting. Record of attendance is as follows:

Dr. T. V. Stubbs Brown (President)	14
Dr. W. J. Saxton (President-Elect)	13
Dr. K. B. Fraser (Past President)[1]	3
Dr. D. A. Henderson (Honorary Secretary)	13
Dr. J. G. Wagner (Honorary Treasurer)	12
Dr. H. W. Horn (Chairman of Council, Federal Council Representative)	14
Dr. H. S. Patterson (Chairman of Subcommittees, Councillor)	11
Dr. B. N. Adsett (Secretary of Subcommittees, Councillor)	11
Dr. J. R. Adam (Councillor)	8
Dr. H. W. Anderson (Councillor)	10
Dr. B. L. W. Clarke (Councillor)	9
Dr. A. E. Lee (Councillor, Federal Council Representative)	12
Dr. A. D. A. Mayes (Councillor)	11
Dr. H. M. Saxby (Councillor)[2]	7
Dr. H. W. Steel (Councillor)	12
Dr. D. C. Jackson (Councillor)	11
Dr. G. V. Hickey, Snr. (Councillor)[3]	2
Dr. H. R. Love (Councillor)[4]	–
Dr. T. Parry (Councillor)[4]	4

Scientific.

July.—Dr. Alan E Lee gave an account of his experiences during a trip abroad—Great Britain, India, the Continent and America.

August.—Professor Charles H. Best, America: "Choline and Cirrhosis."

October.—Dr. D. A. Henderson: "Pyrexias of Obscure Origin."

November.—Dr. Harold R. Love: "History, Hypothesis and the Heart" (Jackson Lecture).

December.—Clinical meeting in conjunction with the Mater Misericordiæ Hospital Clinical Society.

February.—Clinical meeting in conjunction with Brisbane Hospital Clinical Society.

March 6.—Dr. R. D. Lawrence, London: "Diabetes in General Practice."

March 27.—Sir Allen Daley, London: "The British Health Service—A Critical Assessment."

May.—Dr. Macdonald Critchley, London: "The Crimes of Marcel Petiot."

June.—"Panel Discussion on Chronic Peptic Ulcer." Those who took part were Dr. Alan E. Lee, Dr. Evan Thomson, Dr. J. J. Fitzwater and Dr. Richard Row.

Office Bearers and Councillors.

The following office bearers were appointed by the Council for 1952-1953: Chairman of Council, Dr. H. W. Horn (reelected); Honorary Treasurer, Dr. J. G. Wagner; Chairman of Subcommittees, Dr. H. S. Patterson (reelected); Honorary Secretary of Subcommittees, Dr. B. N. Adsett (reelected); Honorary Librarian, Dr. Neville G. Sutton (reelected); Honorary Assistant Librarian, Dr. Konrad Hirschfeld (reelected).

Dr. D. A. Henderson was elected Honorary Secretary, and in accordance with the by-laws the following were elected members of the Council for a period of two years, 1953-1954: Dr. B. L. W. Clarke, Dr. H. W. Horn, Dr. D. C. Jackson, Dr. Alan E. Lee, Dr. Trevor Parry, Dr. H. S. Patterson, Dr. W. H. Steel.[5]

Representation.

The Branch was represented as follows during the year:

Council of the British Medical Association.—Dr. Isaac Jones.

British Medical Association, Representative Meeting, Cardiff, Wales, 1953.—Representative, Dr. J. G. Hunter, delegate, Dr. L. D. Walters.

Federal Council of the British Medical Association in Australia.—Dr. H. W. Horn, Dr. A. E. Lee.

Australasian Medical Publishing Company, Limited.—Dr. Alan E. Lee (director), Dr. T. A. Price, Dr. H. W. Horn (members).

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[1] Leave from 13.2.53.

[2] Leave to 28.11.52.

[3] Elected 20.3.53.

[4] On leave and later resigned.

[5] Dr. H. R. Love, who resigned from the Council for health reasons in 1952, was reappointed in June, 1953, to fill the vacancy caused by the resignation of Dr. T. A. Parry.

Australian Association for Better Hearing.—Dr. C. C. Wark, Dr. J. R. Hutcheon.

Flying Doctor Service.—Dr. Harold Crawford.

Medical Assessment Tribunal.—Dr. G. W. Macartney.

Medical Board of Queensland.—Dr. R. G. Quinn, Dr. F. W. R. Lukin, Dr. J. G. Wagner.

National Safety Council of Australia (Queensland Division).—Dr. L. A. Little.

Medical Officers' Relief Fund (Federal): Queensland Committee.—Dr. W. H. Steel, Dr. G. W. Macartney, Dr. K. B. Fraser.

Physiotherapy Board of Studies.—Dr. J. R. S. Lahz.

Physical Fitness Association of Queensland.—Dr. E. S. Meyers, Dr. Harold Crawford.

Post-Graduate Medical Education Committee.—Dr. Alan E. Lee, Dr. J. R. Adam, Dr. T. V. Stubbs Brown.

Queensland Institute of Medical Research.—Dr. W. H. Steel.

Queensland Health Education Council.—Dr. W. J. Saxton.

Queensland Bush Nursing Association.—Dr. L. Bedford Elwell.

Queensland Bush Children's Health Scheme.—Dr. H. W. Anderson.

Surf Life Saving Association of Australia (Queensland Branch).—Dr. F. W. R. Lukin.

Federal Medical War Relief Fund: Local Committee of Management.—Dr. J. G. Wagner (Chairman), Dr. F. W. R. Lukin (Honorary Secretary), Dr. J. V. Duhig, Dr. Harold R. Love, Dr. B. L. W. Clarke.

The Editor of THE MEDICAL JOURNAL OF AUSTRALIA was represented by Dr. Felix Arden.

Ethics Committee.

At the last annual meeting of the Branch the following were again elected to the Ethics Committee: Dr. G. W. Macartney, Dr. Val. McDowall, Dr. L. J. J. Nye, Dr. J. J. Power, Dr. R. G. Quinn, Dr. Norman Sherwood, Dr. M. Graham Sutton.

During the period of this report no meetings of the Ethics Committee were held.

Library.

Dr. Neville G. Sutton was reelected honorary librarian and Dr. Konrad Hirschfeld was reelected assistant honorary librarian.

From June, 1952, to July, 1953, 250 books and journals were borrowed from the library by 75 doctors, including country members, and eight medical and scientific libraries.

It is gratifying to note that the numbers of journals and books borrowed have greatly increased as compared with the 1951-1952 period.

The Branch receives 47 medical journals, reports *et cetera*. Twenty-seven more books, on miscellaneous subjects, have been received from the Australasian Medical Publishing Company, now making a total of seventy-eight. Regular use is made of the library by a number of members for reference purposes. The staff is always willing to assist members in every way possible. Inter-library exchange exists between the medical and scientific libraries in Queensland and in the southern States, and we are very grateful for their cooperation.

Building Subcommittee.

Personnel.—Dr. M. Graham Sutton (Chairman), Dr. J. G. Wagner, Dr. R. G. Quinn, Dr. A. D. A. Mayes, Dr. B. L. W. Clarke.

This subcommittee is actively engaged in considering ways and means to provide more accommodation for the Branch, either by renovation or building. Several projects have been investigated, but no final recommendation has yet been submitted to the Council.

Organization Subcommittee.

Personnel.—Dr. H. S. Patterson (Chairman), Dr. Alan E. Lee, Dr. J. R. Adam, Dr. H. W. Anderson, Dr. David C. Jackson, Dr. Trevor Parry and ex-officio members of the Council. (Any member of the Council may attend the Organization Subcommittee meetings with power to vote.)

Twenty-one meetings of the subcommittee were held during the year. At these meetings the majority of business to be submitted to the Council, where policy is not involved, is dealt with, and recommendations are made where appropriate.

Councillors are supplied with a report of the Organization Subcommittee, prior to the Council meeting, in order that they may be aware of the business to be transacted. At this meeting a considerable volume of routine matter is dealt with summarily, leaving a greater amount of time for discussion by full Council of important policy issues.

Medical Fees Tribunal.

Personnel.—Dr. J. G. Wagner (Chairman), Dr. Alan E. Lee (Honorary Secretary), Dr. G. W. Macartney, Dr. H. S. McLelland, Dr. R. G. Quinn, Dr. Norman Sherwood.

Six meetings of the tribunal were held. Eight cases were dealt with which had been referred by Council for adjudication.

The Medico-Legal Society of Queensland.

This Society has been in operation since May, 1952. The total membership now is 156, including 49 medical members.

Four meetings were held during the year at which the following subjects were discussed: "Medical and Legal Aspects of Drunkenness in Relation to Drivers of Vehicles"; "Testamentary Capacity"; "Workers' Compensation"; "The Medical Witness".

At the annual meeting, held on May 27, the following medical members were elected to office: President, Dr. Neville G. Sutton; Vice-President, Dr. W. J. Saxton; Honorary Secretary (Medical), Dr. D. A. Henderson; Committee, Dr. G. S. S. Hayes, Dr. Otto Hirschfeld, Dr. Burnett Clarke, Dr. F. W. R. Lukin.

Bancroft Oration.

This year the Bancroft Oration for 1953 will be delivered on Friday, August 28, being the final meeting of Post-Graduate Week. Previously the date has been the first Friday in June. We are honoured to have as our orator Dr. A. J. Collins, of Sydney, who has chosen for his subject, "Some Aspects of Modern Drug Therapy".

Jackson Memorial Lecture.

The Jackson Memorial Lecture was delivered by Dr. Harold R. Love on Friday, November 7, 1952, his subject being "History, Hypothesis and the Heart". This lecture is delivered annually in memory of the late Ernest Sandford Jackson.

Memorial Prizes.

At the annual meeting of the Branch held in September last the following prizes for 1951 were presented by the president to Medical Graduates:

Memorial Prize of the Queensland Branch of the British Medical Association: Herbert Arthur Copeman, M.B., B.S. (University of Queensland).

Harold Plant Memorial Prize: Frederick Schubert, M.B., B.S. (University of Queensland).

The Memorial Prize of the Queensland Branch of the British Medical Association for 1952 has been awarded to Keven James Murphy, M.B., B.S. (University of Queensland, 1952).

Regarding the Harold Plant Memorial Prize, on the recommendation of the Faculty of Medicine of the University of Queensland, no award of this prize was made for 1952, as no candidate qualified under the terms of the regulations.

Branch Handbook.

The amended edition of the Branch Handbook was completed and available for distribution in September last. A free copy is given to new members and to 1949-1951 graduates who are members of the Branch, as members prior to that period had received a copy of the original handbook. However, copies of the new edition are also available to members of the Branch at a cost of 10s.

Federal Medical War Relief Fund.

A special appeal was made to members of the Branch in December last requesting contributions to the Federal Medical War Relief Fund, as it had been found necessary to dispose of Commonwealth Bonds to meet commitments. Members of the Branch subscribed £160 10s. 10d. as a result of this appeal. The Parent Body has also sent a gift of £500 sterling towards the fund.

Medical Fees.

Fees for Life Assurance Examinations.—As a result of negotiations between the Federal Council and the Life Offices' Association of Australia, the fee for medical examination

of candidates for life assurance will be increased to two guineas from July 1, 1953, subject to an undertaking being given that the personal statement of the proponent will be completed in the presence of the medical examiner at the time of the examination.

Medical Examination of Candidates for Entrance to the Commonwealth Public Service.—In accordance with a decision of the Public Service Board, after representations having been made by the Federal Council that the fee be increased from £1 1s. to £1 11s. 6d., it was decided that payment would be made at the rate of £1 5s. in respect of all examinations subsequent to December 31, 1952.

Local Medical Officers—Repatriation.—An agreement was reached between the Minister for Repatriation and the Federal Council that, from January 1, 1953, the fee payable to Local Medical Officers by the Department of Repatriation for eligible ex-service personnel would be increased to 12s. 6d. per visit.

Immunization for Diphtheria, Pertussis and Tetanus—when undertaken on behalf of a Local Authority.—Council has expressed the opinion that, when administered in groups of not less than twenty, the fee should be 2s. 6d. per injection, or three guineas per session of one hour. Material is provided free, but arrangements should be made for the provision of adequate assistance and payment of mileage where necessary. For less than twenty cases, Council considers the fee should be 2s. 6d. per injection, with a minimum of 15s.

Private Fees.—So far as fees in private practice are concerned, Council has indicated to members that it considers they should be stabilized at their present level.

Pharmaceutical Benefits Act.

The *Pharmaceutical Benefits Act* continues to operate satisfactorily. There have been a few suggestions from members that certain drugs be added to the list, but the main comment has been in reference to the use of thyroid, which was placed under the control of Regulation 14A during the year. This was done because the Minister considered it was being prescribed excessively and probably largely for the control of obesity. However, in view of the wide range of its legitimate use, the Council has requested its decontrol.

Pensioner Medical Service.

The Pensioner Medical Service is being well supported by the profession. State Committees of Inquiry have been appointed throughout Australia to investigate complaints against doctors for alleged misuse of the service and cases have recently been referred to them. They are fact-finding committees with wide powers, but, while they recommend to the Minister of Health that certain action be taken, they do not themselves prescribe penalties.

The current fees in the service are 9s. per consultation and 11s. per visit, except that when visits are made to institutions to see several patients, the consultation fee only may be charged.

Even though the pensioner be otherwise insured, members who have expressed their willingness to participate in the Pensioner Medical Service will be paid at the Pensioner Service rates and cannot charge more.

Friendly Societies.

The Council has agreed with the recommendation of the Friendly Societies in Queensland:

(i) That doctors shall issue lodge certificates with a currency up to twenty-eight days at the time of examination without additional charge for the certificate.

(ii) That in the case of chronically ill patients a three-monthly certificate shall be issued free of charge unless a medical examination is also carried out at the time.

(iii) Any further certificates demanded by the lodge will be charged for at examination rates.

National Health Service.

Medical Benefits Fund of Australia.

This fund commenced activities in Queensland on July 1, 1950, with finances provided by voluntary contributions from approximately one-third of the practising profession.

The Council of the fund has three Queensland representatives, namely, Dr. Alan E. Lee, Dr. Harold W. Horn and Dr. John G. Wagner, while the Queensland business is conducted by an essentially autonomous Executive Committee, the medical members of which are Dr. Alan E. Lee (Chairman), Dr. Harold Horn, Dr. John G. Wagner, Dr. J. R. Adam, Dr. A. D. A. Mayes and Dr. Stuart Patterson, together with two contributors' representatives, Mr. L. J. McCray and Mr. G. H. Allen.

In the immediate future medical members of the fund will be invited to elect an enlarged Queensland Executive Committee, and it is hoped to secure adequate representation of doctors in country practice.

The fund has been conspicuously successful and has attained a predominant position in the provision of voluntary medical and hospital insurance. With about 70,000 contributors, and liquid assets of nearly £100,000, its economic position appears impregnable. Much of the success must be attributed to the skill and energy of its Queensland manager, Mr. K. J. Allison.

Since July 1, 1953, Medical Benefits Fund has been a registered agent for the provision of Commonwealth Medical Benefits. These benefits by their encouragement of voluntary medical insurance should make private practice available to the bulk of the community, and in the coming years should greatly reduce the present pressure on the public hospital system.

The Council of the Branch has arranged meetings throughout Queensland at which doctors have been addressed on their responsibilities and privileges arising from the shift from public hospital to private practice. The private practitioners of medicine in Queensland have been given the opportunity through this scheme of Commonwealth benefits to make July 1, 1953, the commencement of a revolutionary change in medical practice in this State.

The Council of the Branch is confident that they will not be found wanting in this great task.

Government Health Services.

On several occasions during the past year Council has considered the matter of reference of patients to governmental institutions for investigation and treatment.

Particular examples were of referring of Workers' Compensation cases to public hospitals for X-ray and other investigation and treatment, and of referring patients to the Chest Clinic for investigation for other purposes than tuberculosis case finding.

It was pointed out that the *Workers' Compensation Act* makes provision for private investigation and treatment and wherever possible these cases should be referred to the appropriate private practitioners.

The Chest Clinic was established by the Commonwealth Government for tuberculosis case finding only. If a patient needs additional investigation it is in his interests as well as those of the profession that he be referred to a private practitioner if he can afford private treatment.

Hospital Policy.

The hospital policy of the Branch is under review by Council, as the introduction of the Commonwealth Government National Health Service and Medical Benefits will greatly affect hospital accommodation in Queensland, to meet the increased demand. An approach has been made to the State Government on the question of provision of adequate intermediate beds in view of the State Government's policy of free hospital treatment without application of a means test. A subcommittee has been appointed to deal with the matter of hospital planning, and also to investigate the position and to explore methods by which more intermediate beds could be made available.

A circular letter was sent to all private hospitals in Queensland, and members of the Council have interviewed the Matrons of various hospitals in the metropolitan area.

British Medical Agency of Queensland Proprietary Limited.

At the end of each year since about 1950 it has been thought that some difficulty might arise in young doctors, and those arriving from overseas, obtaining positions or practices according to their individual taste, but this has not been so.

However, it does appear that a wide variety of opportunities, in nearly any part of Queensland, is a thing of the past and the hard-thinking doctor will plan well ahead for the future.

It is noticeable that the number of doctors arriving in Queensland from overseas has declined during the last twelve months and inquiries regarding opportunities offering in this State come within the same category.

The exchange of practices continues on an increasing scale and opportunities for doctors who, with their wives, are prepared to start in country centres are still available but more limited than in the past. The success achieved by doctors willing to commence practice in this manner is most noticeable.

There is still a demand for assistants and partners, but on a more limited scale than over the past year or two.

The Agency continues to afford protection to members and particularly those of the younger generation who are starting off on their own account or in partnership or in any other form of association. The Agency is generally capable of assessing the merit of any particular proposition and the resultant advice, which incorporates sound information, is frequently of considerable assistance to all parties concerned.

It is pleasing to report the receipt of numerous letters from doctors conveying appreciation of work done by the Agency on their behalf, but this was the purpose of the establishment of the company and every endeavour will be made to increase the standard of service to members.

Another satisfactory year is reported.

Queensland Medical Finance Proprietary Limited.

The company was established primarily to assist young medical practitioners in the purchase of approved practices or partnerships.

Requests for finance have been numerous, thus limiting money available, but consideration will be given to every member seeking assistance.

Inquiries should be addressed to the secretary of the company at 225 Wickham Terrace, Brisbane.

Queensland Post-Graduate Medical Education Committee.

The constitution of the Post-Graduate Medical Education Committee has been altered to enable the annual meeting to be held on the fourth Thursday of January each year and representatives of all constituent bodies are now appointed from that date. Accordingly the British Medical Association is being represented during the current year by Dr. Alan E. Lee, Dr. T. V. Stubbs Brown and Dr. J. R. Adam.

Lectures have been given in Brisbane by the following visitors from overseas: Dr. Avery Jones, Sir Gordon Gordon-Taylor, Dr. R. D. Lawrence, Dr. R. Forgan, Dr. Macdonald Critchley. Dr. Avery Jones and Dr. Lawrence also visited Toowoomba.

Sir Allen Daley, a member of the British Post-Graduate Medical Federation, visited Brisbane in March and attended a meeting of the Queensland Committee. He also gave a lecture entitld: "The National Health Scheme in Great Britain."

Following a policy of ensuring that no post-graduate course can be run at a financial loss and as a result of assistance from both the British Medical Association and the University the finances of the Committee are being restored to a satisfactory condition. Country tours have been resumed to all centres previously visited and extension of these tours to new centres is being contemplated. The following centres have been visited: Bundaberg (2), Gayndah (1), Ipswich (4), Nambour (2), South Coast (2), South Burnett (2), Toowoomba (5), Far North (Cairns/Townsville) (2), Near North (Mackay/Rockhampton) (2). Innisfail will, in future, be included in the Far Northern tour.

Courses in anatomy, advanced medicine, D.P.M. (part 1) and physiology have been held. Arrangements have been made with the Superintendent of the Brisbane General Hospital for doctors to undertake instruction in anæsthesia and resident instruction in obstetrics and gynæcology.

A course in advanced surgery has been arranged and attendance has been most encouraging. It is anticipated that the course will continue for two (2) years and the committee appreciates the services of the surgeons, who have made this course possible.

The committee has been pleased to sponsor twenty-three (23) Queensland doctors who have applied for places in courses for post-graduate study overseas. Future applicants for sponsorship would be well advised to ascertain that they have obtained adequate experience in medical practice before arranging to go overseas and that they have the qualifications necessary for registration in Great Britain if they propose to practise in that country.

An agreement with the British Medical Association has resulted in the holding of post-graduate week in August instead of May as previously. The annual meeting of the Association now becomes an official function during the week. This is another step towards making this week the medical and social highlight of the year.

Affiliated Local Associations.

Annual Conference.

The date of the Local Association Conference, usually held in June, has been altered to synchronize with post-graduate week activities, and will take place on August 26 at 9.30 a.m. at B.M.A. House.

It is hoped that all Affiliated Local Associations will be represented.

Rockhampton and District Local Association.

This local association had another most successful year.

The monthly clinical meetings have been continued at the General Hospital. At these meetings a paper is presented by one of the practitioners, and cases are shown by the resident medical staff. These meetings are organized by the Medical Superintendent.

The social activities were successful also and the Christmas cocktail party and the annual dinner were enjoyed by all.

The membership has been increased both by the arrival of new doctors to the town and by the inclusion of the Gladstone local association.

The office bearers for the year were Dr. E. R. Watkins, President; Dr. J. V. Gordon, Vice-President; and Dr. J. F. Gillogley, Honorary Secretary. Membership now stands: Honorary member, 1; active members, 40.

J. F. GILLOGLEY,
Honorary Secretary.

Nambour District Local Medical Association.

The office bearers for the ensuing year are: President, Dr. H. L. Kesteven; Honorary Secretary, Dr. J. E. Trotter. The association has a membership of eighteen.

Once again we report a good year in both the academic, social, business and community aspects of our association. The number of visits by post-graduate lecturers, film evenings and clinical and lecture demonstration evenings and week-ends have increased and especially has the attendance of the district's practitioners at such gatherings. We have endeavoured to entertain our visiting lecturers—as well as being entertained by them with their excellent addresses—by having them in our district for the week-end. We offer our thanks to the Post-Graduate Committee for their ready cooperation in all matters.

Dr. Parer, after many years in Maleny, has left our association because of his taking up residence in Brisbane, and we welcomed Dr. Walker in his stead. Likewise, Dr. Bridgman and Dr. Stumm have taken over from Dr. Toyne at Cooroy.

J. E. TROTTER,
Honorary Secretary.

Ipswich and West Moreton Medical Association.

The annual meeting and dinner were held at the Hotel Grande, Ipswich, on February 2, 1953. The President of the Queensland Branch (Dr. T. V. Stubbs Brown), the President-Elect (Dr. W. J. Saxton) and the Honorary Secretary (Dr. D. A. Henderson) were present as guests.

The following office bearers were elected: President, Dr. H. M. Saxby; Honorary Secretary, Dr. J. F. Howes.

The subscription remains at £1 1s. for town members and 10s. 6d. for country, non-practising and resident medical officer members. Membership at June 20, 1953, is twenty-seven.

Social Activities.—On April 8, 1953, was held the second annual combined party (Ipswich Branch of Australian Dental Association, Ipswich and West Moreton zone of the Federated Pharmaceutical Guild, and this local association with the ladies). The function took the form of a social evening and was agreed by all to be a success.

Meetings.—The meetings were held as follows: July 17, 1952, Dr. W. G. Livingstone lectured on "Coronary Disease and Acute Myocardial Infarction"; August 21, 1952, "Goitre", by Dr. Evan Thomson; September 18, 1952, a demonstration by Dr. John Lahz of history taking, clinical examination of three patients presented for his opinion. Dr. Lahz also spoke on low pack pain. October 16, 1952, Combined Dental and Medical Association meeting and a lecture on "Dental Anæsthesia" by Dr. John Woodley was followed by brisk discussion; November 20, 1952, "Recent Advances in Ear, Nose and Throat Surgery", by Dr. J. R. Hutcheon; March 12, 1953, business meeting; March 19, 1953, "Neo-natal Disease", by Dr. Felix Arden; April 16, 1953, "Observations on some Medical Personalities and Conditions in England Last Year", by Dr. H. G. Wilson; May 21, 1953, "Childhood Deformities", by Dr. Donald Watson; June, 18, 1953, "Recent Advances in Therapeutics", by Dr. Otto Hirschfeld.

It is desired to thank the Post-Graduate Medical Education Committee and lecturers for their cooperation, and also the Ipswich Hospital Board and Matron for the provision of meeting and lecture room facilities and supper at the conclusion of meetings.

Mackay Local Medical Association.

Activities during the past twelve months have been mainly of a routine nature.

Post-graduate lectures were given by Dr. Konrad Hirschfeld and Dr. J. C. A. Dique.

Local lectures have been: "Allergy and Digitalis", by Dr. R. Grant; "Pigmented Moles", by Dr. G. A. Bolton; "Advances in Eye Work over the Past Ten Years", by Dr. H. J. Taylor; "History of Medicine", by Dr. J. V. Guinane.

A Medical Science Group has been formed amongst local practitioners to discuss scientific medical subjects. The subjects chosen for the first two meetings were "Cirrhosis of the Liver with special reference to 'Choline'" and "Pancreatitis".

S. C. WILLIAMS,
Honorary Secretary.

Bundaberg Local Association (British Medical Association).

Our association now has a membership of eight. The President is again Dr. Egmont Schmidt.

Earlier in the year we had two lectures from Dr. Felix Arden, which were very much appreciated. More are anticipated in the future. We also had a visit from Dr. Alan E. Lee, who spoke to us on the Medical Benefits Fund of Australia, and the Commonwealth Medical Scheme. From early this year, we have been holding monthly clinical evenings, when members have presented some very interesting and instructive cases.

ERIC E. SCHMIDT,
Honorary Secretary.

Downs and South-Western Medical Association (British Medical Association).

The twenty-sixth annual meeting of the association was held on September 20, 1952, at the Globe Hotel.

The election of officers resulted: President, Dr. J. W. P. Henderson; President-Elect, Dr. A. McGregor; Past President, Dr. V. R. Woodhill; Auditor, Dr. J. G. M. Beale; Secretary-Treasurer, Dr. L. Fenwick; Committee, Dr. G. V. Hickey (senior), Dr. R. J. H. Spark, Dr. W. F. Machin, Dr. A. S. Furness, Dr. J. G. M. Beale.

The meeting was followed by the annual dinner and an address by Dr. N. V. Youngman on "Psychiatric Trends Abroad".

Membership of the association now numbers twenty-seven. During the year so far there have been five lectures by visiting doctors and one symposium by local members. Average attendance is about twenty.

We are grateful to our visiting lecturers, Dr. N. V. Youngman, Dr. D. P. Hannaford Schafer, Dr. C. A. Leggett and Dr. J. H. R. Lahz, for their time and enthusiasm in coming to Toowoomba and for the excellence of their material. We were also extremely fortunate to have visits from Sir Allen Daley and Dr. R. D. Lawrence, both of whose lectures were extremely interesting. We are indebted to the Director-General of Health, Dr. A. Fryberg, and the Director of Post-Graduate Studies, Dr. Grantley Stable, who made these two visits possible.

There have been two Executive Committee meetings and two quarterly non-clinical meetings to date. Discussion at the latter has been chiefly concerned with various aspects of the hospital and medical benefits under the National Health Service. It is hoped these will be working smoothly within twelve months and members generally feel that, apart from minor anomalies, the scheme is a sound one.

The next annual meeting of the association will probably be held in October.

J. W. P. HENDERSON,
President.

South Burnett Medical Association (British Medical Association).

Our association meets quarterly at three centres—Kingaroy, Nanango and Murgon—in the area. The meeting is preceded by dinner and followed by an address by a visiting lecturer.

The meeting of July, 1952, was to have been followed by a showing of films, but a lack of spare spools precluded this.

In November, 1952—at Murgon—the meeting was addressed by Dr. M. Elliott on "Gynæcology in General Practice". At this, the annual meeting, Dr. F. Cowlishaw was elected President and Dr. F. I. Wootten Secretary for the ensuing year.

At Nanango in February, 1953, the meeting was addressed on "Congenital Deformities" by Dr. D. Watson.

At Kingaroy, the meeting in May, 1953, was addressed by Dr. D. A. Henderson on "Metabolic Diseases".

We have recently lost a member who attended the "meeting to form" our association in 1935 and who had been continuously in practice in Kingaroy since—the late Dr. Jean Stobo. Dr. W. J. Saxton also attended that meeting.

F. I. WOOTTEN,
Honorary Secretary.

Townsville Local Association (British Medical Association).

This association, for the year 1952-1953, has had a very successful year, the number of members now being thirty-five.

Activities during the year were an alternative arrangement of clinical meetings, lectures and business meetings. The programme was as follows: August 12, 1952, Dr. R. Palmerston Rundle, "The Running Ear"; September 9, 1952, clinical meeting by hospital staff; September 23, 1952, clinical meeting by Dr. L. Halberstater; October 7, 1952, lecture and demonstration of cases by Mr. T. U. Ley, "Tuberculosis of Bone and Joint", with Dr. R. Douglas discussing the chemotherapy of treatment; October 30, 1952, clinical meeting by the hospital staff; November 8, 1952, clinical meeting by the hospital staff; November 22, 1952, clinical meeting; December 2, 1952, a critical analysis of cases of jaundice occurring at the Townsville General Hospital, correlated with laboratory findings by Dr. Dorney, Dr. Rimington and Dr. G. Douglas; January 1, 1953, a meeting with the Ambulance Brigade Board to discuss mutual problems; February 17, 1953, annual general meeting, Dr. G. H. Moore was elected President; March 3, 1953, clinical meeting by local practitioners; March 17, 1953, Dr. Elyan, "Convulsions in Childhood"; March 31, 1953, clinical meeting by private practitioners and hospital staff; April 14, 1953, farewell function to Dr. Dorney and Dr. G. Douglas; April 28, 1953, business meeting; May 12, 1953, clinical meeting; May 24-25, 1953, lectures and demonstrations by Dr. Abraham, Dr. Morgan Windsor and Dr. Penington, under the auspices of the Post-Graduate Medical Education Committee; June 9, 1953, clinical meeting and business meeting combined, Mr. Norman, of the Medical Benefits Fund of Australia addressed the meeting; July 7, 1953, address by Dr. Wagner, of Brisbane, on Medical Benefits Fund of Australia and the National Health Service.

The meetings for the year were very well attended.

This association was most pleased with the resumption of lecture tours by the Post-Graduate Education Committee.

Perhaps the most notable achievement of the year was the formation of a library to be known as the North Queensland Medical Library. To date twelve journals are being supplied by members.

K. L. KING,
Honorary Secretary.

Cairns Local Association (British Medical Association).

The business of the last twelve months of the Cairns Local Association (British Medical Association) has consisted of routine matters.

Clinical meetings have been held at the Base Hospital, and some interesting lectures and discussions have taken place, with benefit to all members. These meetings have been rather popular.

The Pharmaceutical Benefit and Pensioner Medical Schemes are working smoothly in our district.

Post-graduate lectures were held, and Dr. Abrahams and Dr. Windsor proved popular lecturers, and their efforts to improve our knowledge was much appreciated.

L. WESTAWAY,
Honorary Secretary.

General Practitioner Group (British Medical Association).

This group was formed in 1938 under the chairmanship of Dr. L. P. Winterbotham. Its object is to promote the interests of the profession in all matters pertaining to general practice. Membership is open to members of the Queensland Branch of the British Medical Association who derive at least two-thirds of their professional income from general practice.

It is hoped that eventually all general practitioners throughout Queensland, who are members of the British Medical Association, will join the General Practitioner Group. It is also to be hoped that local associations will send delegates each year to the annual meeting, which will, in future, be held during Post-graduate Week.

General practitioners' problems could often be better discussed, in the first instance, by the General Practitioner Group committee, and then, when necessary, sent on to the Branch Council with a recommendation.

Recently the General Practitioner Group committee discussed at length the proposal to form an Australian College of General Practitioners.

Subsequently it expressed as its opinion that such a college would: (*a*) raise the standard of general practice; (*b*) raise the status of the general practitioner, since such a college could ultimately enjoy equal standing with existing colleges.

It states further that the function of such a college should be: (*a*) to provide leadership and guidance in general practice; (*b*) to provide teaching of methods in general practice; (*c*) to record and preserve the art of family practice.

The General Practitioner Group committee requested the Branch Council to place it on the agenda for its meeting with local associations during Post-graduate Week and practitioners will then have an opportunity of discussing this matter.

Present members of the General Practitioner Group committee of the Queensland Branch of the British Medical Association are: Dr. H. S. Patterson (Chairman), Dr. Charles Roe (Hon. Secretary), Dr. B. N. Adsett, Dr. A. D. Isles, Dr. M. Carseldine, Dr. A. D. A. Mayes, Dr. A. J G. Nicholson and Dr. H. J. Winterbotham.

CHARLES ROE,
Honorary Secretary.

Sections for Special Branches of Medical Knowledge.

Oto-Rhino-Laryngology.

The following meetings have been held by the Ear, Nose and Throat Section during the past year: (i) lecture by Mr. E. W. Wagner on symptoms and diagnosis of abnormalities of dental bite; (ii) films and lecture by Dr. Shanasy, of Melbourne, on nasal plastic surgery and on hearing aids; (iii) films on petrositis and on allergy; (iv) clinical meeting presented by the Ear, Nose and Throat Staff of the Mater Hospital; (v) annual meeting.

K. GREEN, Chairman.
C. C. WARK, Honorary Secretary.

Orthopædics.

During the year no clinical meetings have been held, but the section has met to discuss Workers' Compensation cases. The section was privileged to be received by the Council of the British Medical Association to discuss matters arising out of the agreement our Sydney colleagues have with the insurance companies in New South Wales.

ANTHONY MCSWEENY,
Honorary Secretary.

Pædiatrics.

Dr. P. A. Earnshaw (Chairman), Dr. N. G. Anderson (Honorary Secretary).

This section now numbers fifteen members.

Business meetings were held at intervals throughout the year, and a general meeting in October, 1952, at which the office bearers were reelected.

Clinical meetings which are held alternatively at the Hospital for Sick Children, Herston Road, and the Mater Children's Hospital took place in October, 1952, March, 1953, and June, 1953, and were well attended.

N. G. ANDERSON,
Honorary Secretary.

Ophthalmology.

Four regular meetings were held during the year, the average attendance being eleven. There are twenty-five members.

Meetings: July 31, 1952.—Election of office bearers: President, Dr. J. Hart; Secretary, Dr. A. Harrison; Treasurer, Dr. B. Wilson; Federal Councillor, Dr. P. B. English; Prevention of Blindness Committee, Dr. C. N. Matheson, Dr. J. Hart, Dr. P. B. English; Federal Visual Hygiene Committee representative, Dr. J. B. G. Gibson; Federal Orthoptic Board representative, Dr. F. Garrett Scoles; State Orthoptic Board, Dr. F. Garrett Scoles and Dr. O. Salkeld; State Visual Hygiene Committee, Dr. E. O. Marks, Dr. Allan V. Henry and Dr. J. B. G. Gibson.

October 10, 1952, general business. Suggestion that miotics should be put on free list in the Pharmaceutical Benefits Scheme. December 4, 1952, clinical meeting at the Brisbane General Hospital. Seven cases were shown. April 9, 1953, three films of eye operations were shown.

J. B. G. GIBSON,
Honorary Secretary.

Federal Council of the British Medical Association in Australia.

Two meetings of the Federal Council were held during the period under review, the first one in Melbourne from August 21 to 23, 1952, and the second in Sydney from February 23 to 25, 1953.

At these meetings the Branch was represented by Dr. H. W. Horn and Dr. Alan E. Lee.

The General Secretary of the Federal Council, Dr. J. G. Hunter, visited Brisbane and was present at the meeting of the Branch Council on April 10 last.

On the retirement of Dr. F. W. Carter from the Federal Council as a representative of the Western Australian Branch, a letter was sent by our President to the President of the Western Australian Branch expressing appreciation of the long and valuable service rendered by Dr. Carter to the Federal Council of the British Medical Association in Australia. Appreciative acknowledgements were received from both the President, Dr. John Day, and from Dr. Carter.

Australasian Medical Congress (British Medical Association).

Ninth Session.

The Council of the New South Wales Branch has accepted the invitation of the Federal Council of the British Medical Association in Australia to hold the Ninth Session of Congress in Sydney.

Dr. A. J. Collins has been appointed President, and the tentative date is August, 1955.

Federal Independence Fund.

Information was received from the Federal Council that contributors to this fund might now have the unused portion of their contribution refunded if they so desire. However, it was pointed out that the purpose for which the fund was established might well continue in the future, and contributors were, therefore, given the opportunity of leaving their balance in the fund for future use if the necessity should arise.

Australasian Medical Publishing Company Limited.

Two meetings of the Directors of the Australasian Medical Publishing Company were held; one at Melbourne on August 24, 1952, and the other at Sydney on February 23, 1953. The Branch was represented by Dr. Alan E. Lee at both meetings.

Congratulations.

Messages of congratulation were sent by the Council to Sir Victor Hurley upon his election as an Honorary Fellow of the Association of Surgeons in Great Britain; to Dr. Otto Hirschfeld upon his appointment as Deputy Chancellor of the University of Queensland, and to Dr. K. B. Fraser on his inclusion in the Coronation Honours, being awarded a C.B.E.

Golf Match: Doctors v. Dentists.

In November last a resumption of golf matches, Doctors *versus* Dentists, took place on the course of the Indooroopilly Golf Club, which resulted in a win for the dentists, 4-3, after a very enjoyable day. Dr. B. N. Adsett acted as convenor for the doctors.

Conclusion.

The term of office of the retiring Council has been shortened by a month to make possible a combined British Medical Association–Post-Graduate Week and it is hoped by this means a greater number of country members will be able to attend the annual meeting of the Branch. The last annual meeting was the first of its kind and its success was due to the organizing work of Dr. K. B. Fraser and Dr. W. J. Saxton, aided by the manager of the British Medical Agency, Mr. S. N. Cobbold, and, on behalf of the Council and members, they are to be congratulated. The Great Hall of the Brisbane Boys' Grammar School provided a most appropriate atmosphere and our thanks are due to the School Trustees and staff for their kind help.

Outstanding events of the year have included a high-level controversy between the Federal and State Governments on the matter of subsidizing hospital beds in the absence of a means test, and very recently the inauguration of the National Health Service.

QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

(INCORPORATED.)

Balance Sheet as at June 30, 1953.

	£ s. d.	£ s. d.
FIXED LIABILITIES:		
Loan from Queensland Medical Land Investment Co. Limited ..		4,650 0 0
CURRENT LIABILITIES:		
Provision for Long Service Leave	165 19 0	
Subscriptions for Remittance to—		
British Medical Association, London 40 19 11		
Australasian Medical Publishing Company Limited, Sydney .. 30 5 0		
	71 4 11	
		237 3 11
ASSOCIATION FUNDS:		
Accumulation Fund	14,281 0 8	
Sinking Fund	2,654 7 7	
Superannuation Fund	890 15 8	
		17,826 3 11
		£22,713 7 10

	£ s. d.	£ s. d.	£ s. d.
FIXED ASSETS:			
At cost, less depreciation.			
Land and Buildings—			
B.M.A. House .. 2,196 13 8			
Bartley Street Property 1,418 11 0			
	3,615 4 8		
Typewriters, Bookcases, Balopticon and Furniture	332 1 7		
Architects' Fees—preparing plans for prospective new building—at cost	300 0 0		
Library—at valuation	150 0 0		
Bancroft Medals and Collar	2 5 0		
Wire Recorder	32 9 10		
Refrigerator Installation	68 19 3		
		4,501 0 4	
Investments—			
Queensland Medical Land Investment Company Limited—5,950 shares of £1 each paid to 10s. each at cost	2,975 0 0		
City Electric Light Company Limited—£2,000 (4¼%) Inscribed Stock at cost	2,000 0 0		
British Medical Agency of Queensland Proprietary Limited—1,000 shares of £1 each, fully paid—at cost ..	1,000 0 0		
	£5,975 0 0		
Australasian Medical Publishing Company Limited, Sydney—			
5% Series "C" Debentures—at cost	50 0 0		
5% Series "D" Debentures—at cost	5 0 0		
3¾% Series "E" Debentures—at cost	2,100 0 0		
Advance not yet converted to Series "E" Debentures ..	59 2 0		
	£2,214 2 0		
		8,189 2 0	
CURRENT ASSETS:			
Australian Consolidated Inscribed Stock—at cost—			
English, Scottish and Australian Bank Limited ..	4,336 12 3		
3¼% maturing 15/9/1959 .. .. 1,500 0 0			
3¼% maturing 15/10/1960 .. .. 300 0 0			
	1,800 0 0		
Sundry Debtors	305 0 0		
Cash	20 0 0		
Electric Light Deposit	6 0 0		
Prepayments	10 10 0		
		6,478 2 3	
FUND INVESTMENTS:			
Sinking Fund—			
Australian Consolidated Inscribed Stock—			
£280 3¾% maturing 15/12/1965 at cost	280 0 0		
£90 3¼% maturing 15/10/1960 at cost	90 0 0		
£2,000 3¼% maturing 15/8/1964 at cost	2,000 0 0		
Commonwealth Savings Bank, Brisbane	284 7 7		
	2,654 7 7		
Superannuation Fund—			
Commonwealth Savings Bank, Brisbane	890 15 8		
		3,545 3 3	
		£22,713 7 10	

We have compared the above Balance Sheet with the books, accounts and vouchers of the Queensland Branch of the British Medical Association (Incorporated), and have obtained all the information and explanations we have required.

In our opinion, the Balance Sheet is properly drawn up to exhibit a true and correct view of the state of the Association's affairs as at June 30, 1953, according to the best of our information and the explanations given to us, and as shown by the books of the Association.

The Register of Members and other records which the Company is required to keep by the Companies Acts of 1931-1942, or by its Articles, have, in our opinion, been properly kept.

R. G. GROOM & Co.,
Chartered Accountants (Aust.),
Auditors.

J. G. WAGNER,
Honorary Treasurer.

Brisbane,
July 28, 1953.

QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

(INCORPORATED.)

Revenue Account for Twelve Months ended June 30, 1953.

EXPENDITURE.	£ s. d.	£ s. d.	INCOME.	£ s. d.	£ s. d.
1953—June 30.			1953—June 30.		
To Branch Expenses	2,982 16 7		By Branch and Organization Fund—Subscriptions		5,281 16 9
„ Library Expenditure	295 10 4		„ Portion of Journal Subscriptions—To be invested in Australasian Medical Publishing Company Limited, Sydney, Series "E" Debentures		495 2 6
„ Depreciation of Equipment	20 13 4				5,776 19 3
		3,299 0 3	„ B.M.A. House and Bartley Street Property—		
„ Subsidy — Post-Graduate Committee		400 0 0	Rents	574 10 6	
„ Provision for Staff Superannuation		80 0 0	*Less*—		
„ Federal Council—			Depreciation .. 95 1 11		
Capitation Fees		1,023 15 0	Other Expenses 750 11 9		
„ Balance—carried down		1,173 13 6		845 13 8	
					271 3 2
			„ Interest—		
			City Electric Light Company Limited Inscribed Stock	84 19 8	
			Australasian Medical Publishing Company Limited Debentures and Funds Held	59 8 2	
			Commonwealth Government Inscribed Stock	58 10 0	
					202 17 10
			„ General—		
			Proceeds Clerical Assistance and Sundries	208 0 0	
			Directors' Fees—Yorkshire Insurance Company Limited	50 0 0	
			Sale of Diet Sheets and Lists of Members	9 14 10	
					267 14 10
June 30.		£5,976 8 9			£5,976 8 9
To Federal Income Taxes on income of years 1950/51 and 1951/52		43 15 0	June 30.		
„ Net Surplus for Year—transferred to Accumulation Account		1,129 18 6	By Balance—brought down		1,173 13 6
		£1,173 13 6			£1,173 13 6

QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

(INCORPORATED.)

GENERAL FUND.

Statement of Receipts and Payments for Twelve Months ended June 30, 1953.

RECEIPTS.	£ s. d.	£ s. d.	PAYMENTS.	£ s. d.	£ s. d.
1952—July 1.			1953—June 30.		
To Funds at July 1, 1952—			By Amounts remitted on acount of Subscriptions collected to—		
E.S. & A. Bank—Current A/c	3,449 18 10		British Medical Association, London	1,765 16 0	
Cash	20 0 0		Australasian Medical Publishing Company Limited, Sydney—		
		3,469 18 10	for publication of Journals	643 8 9	
1953—June 30.			Applied to Series "E" 3½% Debentures	495 2 6	
To Subscriptions—			Medical Students' Loan Fund	82 2 6	
Queensland Branch Subscriptions	3,492 2 3				2,986 9 9
Organization Fund, Queensland Branch	1,789 14 6		„ Federal Council—		
For remittance to British Medical Association, London	1,756 5 8		Capitation Fee (1953)		1,023 15 0
For remittance re Medical Journals	1,132 10 9		„ Branch Expenses—		
Medical Students' Loan Fund	66 12 6		Salaries, Audit and Honoraria	2,025 12 7	
		8,237 5 8	Printing, Stationery, Postages and Telephone	575 9 7	
„ General—			Bank Charges, Lighting and Sundries	404 1 5	
Clerical Assistance and Hire of Office Equipment	312 0 0				3,005 3 7
Rents—			„ B.M.A. House Expenses—		
B.M.A. House .. 473 10 6			Rates to 30/6/1953	344 11 8	
Bartley Street Property .. 231 0 0			State Land Tax, Insurance and Maintenance	318 10 1	
	704 10 6			£663 1 9	
Interest on City Electric Light Company Limited Inscribed Stock	84 19 8		„ Bartley Street Property—		
Australasian Medical Publishing Company Limited—			Rates to 30/6/1953	28 4 4	
Interest on Funds Held .. 4 3 2			State Land Tax, Insurance and Sundries	59 5 8	
Interest on Debentures .. 55 5 0				£87 10 0	
	59 8 2				750 11 9
Interest on Commonwealth Inscribed Stock	58 10 0		„ General—		
Directors' Fees—Yorkshire Insurance Company Limited	50 0 0		Subsidy—Post-Graduate Committee	400 0 0	
Proceeds Sale Diet Sheets and Lists of Members	9 14 10		Library Expenditure	295 10 4	
		1,279 3 2	Transfer to Superannuation Fund	80 0 0	
			Federal Income Taxes	43 15 0	
			Purchase—Equipment	44 10 0	
					863 15 4
			„ Funds at June 30, 1953—		
			E.S. & A. Bank Limited, Brisbane	4,336 12 3	
			Cash	20 0 0	
					4,356 12 3
		£12,986 7 8			£12,986 7 8

Our immediate Past-President, Dr. K. B. Fraser, is retiring from the Council and takes with him the good wishes of every member and a full appreciation of his years of service to the profession, in both army and civilian spheres. Dr. J. R. Adam will also be missed after years of hard work, three as Honorary Secretary to the Branch. The Council joins me in thanking him, coupled with the hope that his return to the Council table will not be long delayed.

Our relations with the various public bodies have been most cordial and augur well for a wider appreciation of the aims and objects of the Branch. The Department of Health has been most cooperative and any differences of opinion have been on the policy level and not personal; we hope that this will continue.

The office administration of the Branch affairs has run smoothly in that typically efficient manner which once again earns Mrs. Spooner and her staff our admiration and gratitude.

My personal thanks go to the members of the Council who in the past year have given freely of both time and experience; especially does this apply to the Chairman of Council, Dr. Harold W. Horn, and Dr. David Henderson, the Honorary Secretary, and the members of the Executive and all those who have recently taken part in the information campaign in relation to the National Health Service.

With good wishes for a happy and successful year as President of the Branch I welcome my successor, Dr. W. J. Saxton, who takes office with a reputation for successful work well founded in the past as Honorary Secretary of the Branch and Honorary Secretary of Congress of 1950.

This year has been made memorable throughout the British Commonwealth by the solemnity and pageantry of the Coronation of her Majesty Queen Elizabeth II, who is the gracious Patron of our association. The members of this Branch humbly wish their Sovereign and Patron a long and successful reign.

T. V. STUBBS BROWN,
President.

BALANCE SHEET AND FINANCIAL STATEMENT.

The balance sheet and financial statement for the year ended June 30, 1953, copies of which had been circulated to members, were adopted on the motion of Dr. J. G. Wagner, honorary treasurer, seconded by Dr. D. A. Henderson. The financial statements are published herewith.

OFFICE BEARERS.

The President announced the election of office bearers and councillors for the ensuing year as follows.

President: Dr. W. J. Saxton.

President-Elect: Dr. H. Stuart Patterson.

Past President: Dr. T. V. Stubbs Brown.

Honorary Secretary: Dr. D. A. Henderson.

Members of Council: Elected for two years—Dr. B. N. Adsett, Dr. G. V. Hickey, Dr. A. D. A. Mayes, Dr. A. F. McSweeny, Dr. Charles Roe, Dr. R. B. Salter, Dr. J. G. Wagner. Elected in 1952 for two years—Dr. B. L. W. Clarke, Dr. H. W. Horn, Dr. David Jackson, Dr. Alan E. Lee, Dr. H. R. Love, Dr. W. H. Steel.

ETHICS COMMITTEE.

The following were elected members of the Ethics Committee: Dr. Val McDowall, Dr. L. J. J. Nye, Dr. J. H. Power, Dr. R. G. Quinn, Dr. Norman Sherwood, Dr. F. W. R. Lukin, Dr. Alex Murphy.

Election of Auditors.

Messrs. R. G. Groom and Company were reelected auditors for the ensuing year.

Votes of Thanks.

A vote of thanks to the retiring members of the Council and to Mrs. Spooner and the office staff was moved by Dr. W. J. Saxton, seconded by Dr. J. G. Wagner. A personal vote of thanks was moved from the chair by Dr. T. V. Stubbs Brown to the chairman of Council, Dr. H. W. Horn, and the honorary secretary, Dr. D. A. Henderson, also to Dr. K. B. Fraser, Dr. H. W. Anderson, Dr. J. A. Adam and Dr. H. M. Saxby, retiring members of the Council.

Adjournment of Meeting.

The meeting was then adjourned and was resumed later in the day in the Great Hall of the Brisbane Grammar School, Gregory Terrace, Brisbane. Dr. T. V. Stubbs Brown, the President, occupied the chair.

Memorial Roll.

The President read the memorial roll of members of the Branch, all present standing.

Presentation of Prize.

The memorial prize of the Queensland Branch of the British Medical Association for 1952 was presented by the President to Kevin James Murphy, M.B., B.S., of the University of Queensland.

Induction of President.

The retiring president introduced the incoming president, Dr. W. J. Saxton, and installed him in the chair.

President's Address.

The incoming president, Dr. W. J. Saxton, delivered his president's address (see page 553).

Out of the Past.

In this column will be published from time to time extracts, taken from medical journals, newspapers, official and historical records, diaries and so on, dealing with events connected with the early medical history of Australia.

THE TITLE OF "DOCTOR".[1]

[*The Australian Medical Gazette*, August, 1871.]

THE title of "Doctor" was invented in the twelfth century. Irnerious, a learned professor of law at the University of Bologna, induced the Emperor Lotharie II, whose chancellor he was, to create the title, and he himself was the first recipient of it. He was made Doctor of Laws by that University. Subsequently the title was borrowed by the Faculty of Theology and first conferred by the University of Paris on Peter Lombard. William Gardener was the first person on whom the title of Doctor of Medicine was bestowed: he received it from the College of Asti in 1329.

Correspondence.

PRECOCIOUSNESS: CASE REPORT.

SIR: I feel that the case history reported by R. Bowman and Edward Wilson in the issue of September 19 prompts some brief comments.

The patient, a girl of six years, exhibited some signs of precocious, but otherwise normal, sexual development, and these changes were associated with the increase of osseous age which usually accompanies pubescence. There was no suggestion of "virilism", and the amount of 17-ketosteroids in a twenty-four-hour specimen of urine was not significantly increased.

It cannot be too strongly emphasized that the precocious, but otherwise normal, sexual development of a girl is usually of the so-called "idiopathic" or "constitutional" type, probably the result of a functional disturbance of the hypothalamic-pituitary mechanism. Occasionally this type of disturbance is caused by an organic lesion of the hypothalamic region—inflammatory, neoplastic or possibly a congenital defect.

An ovarian neoplasm is a very uncommon cause of precocious sexual development, and as such a neoplasm can usually be palpated on abdominal or rectal examination, an abdominal section is rarely necessary unless such a mass is palpable. As Gross (1953) points out, ". . . sexual precocity in a female child should not be regarded as arising from an ovarian neoplasm, unless a pelvic mass can be felt. . . . In short, if an ovarian tumour in a child is large enough to give endocrine disturbance, it can always be felt".

[1] From the original in the Mitchell Library, Sydney.

As the clinical picture produced by adreno-cortical hyperplasia or tumour is one of "virilism" in girls, I find it difficult to understand why the child, M.P., with no clinical evidence of "virilism", should have been subjected to a surgical exploration of her adrenal glands. It is even more difficult to understand what prompted the removal of half of the right and a small portion of the left adrenal gland of this pubescent girl.

Yours, etc.,
LORIMER DODS.

Royal Alexandra Hospital for Children,
Camperdown,
New South Wales.
September 22, 1953.

Reference.

GROSS, ROBERT E. (1953), "The Surgery of Infancy and Childhood", W. B. Saunders Company.

SIR: In the issue of September 19, 1953, you published a case report on precociousness by a Dr. Bowman and a Dr. Wilson. On a first reading, it struck me as a quaint contribution from a parochial hospital, merely, not to be taken seriously.

On re-reading it, however, I find it to be not at all comical, but sinister. It is fairly obvious that the patient upon whom the report was based belongs to a group of little girls who mature at an earlier age than normal. That is all. L. Dods (M. J. AUSTRALIA, 1: 241) writes: "Ignorance of this transient disturbance of the pattern of puberty may be responsible for much unnecessary investigation and anxiety. . . ." The authors, although they quote this admirable article, fail to heed the professorial warning.

On the contrary, they subjected their patient to a barrage of surgical procedures, including an onslaught on that *viscus elegantissimum*, the suprarenal gland. Warming up to their work, they toyed with the notion of dealing with the pituitary gland and the hypothalamus. But they were apparently thrown out of their stride by the anatomical inaccessibility of those structures.

The majority of your readers, sir, are in general practice, and one can only pray, and pray hard, that they will not be misled by these authors.

You yourself, Mr. Editor, are not blameless in this matter. In my view, this case report should never have been accepted for publication.

I am sorry to write in this testy, censorious and ill-tempered manner, reminiscent, perhaps, of the style of your excellent "Out of the Past" column. But, as I said above, the evil effects of such erroneous medical writing can be far reaching and dangerous.

Yours, etc.,
ERIC SUSMAN,
Honorary Physician, Royal Prince Alfred Hospital, Sydney; Lecturer in Clinical Medicine, University of Sydney.

Sydney,
September 25, 1953.

SYME MEMORIAL LECTURE—SINCE SYME: TRANSFORMATION AND DISSOCIATION.

SIR: The Syme Memorial Lecture by W. G. D. Upjohn (M. J. AUSTRALIA, September 19, 1953) is one that not only serves to keep alive the memory of Syme, but also gives a lead to the profession in keeping the best of the past while facing problems which are new.

Those members of the Federal Committee and the Victorian Council who heard Sir George Syme speak at a dinner a few days before his death may remember what he said about "some undesirable changes that he had tried hard to check". As Mr. Upjohn points out, there had been many changes in the practice of medicine over the past forty years and many changes in the way practitioners do their work, and changes, too, in the way the public regard their doctors. Some of these matters have been mentioned by Sir Russell Brain, President of the Royal College of Physicians, in his lecture on "The Need for a Philosophy of Medicine" (*Lancet*, May 16, 1953), and Sir Earle Page has said that there are likely to be very great changes—greater

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DISEASES NOTIFIED IN EACH STATE AND TERRITORY OF AUSTRALIA FOR THE WEEK ENDED SEPTEMBER 5, 1953.[1]

Disease.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Australian Capital Territory.	Australia.
Acute Rheumatism	..	4(3)	..	..	..	..	..	..	4
Amœbiasis	..	..	..	..	..	..	..	..	..
Ancylostomiasis	..	..	..	..	..	..	..	..	..
Anthrax	..	..	..	..	..	..	..	..	..
Bilharziasis	..	..	..	..	..	..	..	..	..
Brucellosis	..	2	..	..	1	..	..	..	3
Cholera	..	..	..	..	..	..	..	..	..
Chorea (St. Vitus)	..	1(1)	..	..	..	..	..	..	1
Dengue	..	..	..	..	..	..	..	..	..
Diarrhœa (Infantile)	..	1	7(4)	..	..	..	1	..	9
Diphtheria	1(1)	5(2)	4	..	2(2)	..	..	..	12
Dysentery (Bacillary)	..	..	..	2(2)	1	2(1)	..	..	5
Encephalitis	1	1	..	..	..	..	..	..	2
Filariasis	..	..	..	..	..	..	..	..	..
Homologous Serum Jaundice	..	..	..	..	..	..	..	..	..
Hydatid	..	1	..	..	..	..	1	..	2
Infective Hepatitis	..	8(3)	..	..	6(2)	..	..	..	14
Lead Poisoning	..	..	..	..	..	..	..	..	..
Leprosy	..	..	1	..	3	..	1	..	5
Leptospirosis	..	..	2	..	..	..	..	..	2
Malaria	..	1(1)	..	..	1(1)	..	..	..	2
Meningococcal Infection	5(3)	2(1)	..	1(1)	..	..	..	..	8
Ophthalmia	..	..	..	..	..	..	..	..	..
Ornithosis	..	..	..	..	..	..	..	..	..
Paratyphoid	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..
Poliomyelitis	14(6)	4(1)	..	5(5)	..	..	..	..	23
Puerperal Fever	..	..	..	..	..	..	..	..	..
Rubella	..	16(13)	1(1)	..	19(14)	..	..	..	36
Salmonella Infection	..	..	..	..	..	..	..	..	..
Scarlet Fever	11(6)	38(25)	12(9)	..	2(2)	..	..	..	63
Smallpox	..	..	..	..	..	..	..	..	..
Tetanus	..	..	2(1)	..	..	..	..	..	2
Trachoma	..	..	..	..	..	..	..	..	..
Trichinosis	..	..	..	..	..	..	..	..	..
Tuberculosis	50(40)	12(6)	6(2)	9(5)	6(4)	5(4)	1	..	89
Typhoid Fever	9(5)	3(3)	7(5)	..	..	..	..	..	19
Typhus (Flea-, Mite- and Tick-borne)	..	..	..	..	..	..	..	..	..
Typhus (Louse-borne)	..	..	..	..	..	..	..	..	..
Yellow Fever	..	..	..	..	..	..	..	..	..

[1] Figures in parentheses are those for the metropolitan area.

than have been known before in the practice of medicine. Some of these points I have enlarged upon in an article accepted for publication by THE MEDICAL JOURNAL OF AUSTRALIA.

One is in agreement with what Mr. Upjohn has to say about the administrative machinery of the profession. Some years ago the suggestion was made that there should be a representative body similar to that in England, based upon a plan of one medical representative for each of the Federal Electoral Districts. This was to be the policy-making body on matters affecting the medical profession in Australia as a whole, and was to have been organized on the same lines as The Institution of Engineers. The Federal Council could then have been the small executive body to put the policy into effect, and to take speedy and effective action whenever necessary.

The question of unpaid or honorary service as a public utility is one of very great importance at the moment. Whether it is an anachronism is also open to question in view of the fact that the hospitals managed by certain religious bodies and charitable institutions in many cases are teaching hospitals. Furthermore, now that the Federal Government's scheme has been introduced, there should be a large number of patients who can afford to pay for treatment, so that those who cannot afford to pay will be somewhat reduced in numbers. There are some who think that the profession may lose more than it gains if it ceases to give honorary service to these people.

As Mr. Upjohn says, "there will be obvious advantages and some losses". In Queensland some of these losses are that the public hospitals are completely in charge of lay committees; visiting medical staff has no official voice in the management of the hospitals, and therefore cannot advise officially on matters connected with the progress of medicine. Since 1943 the public hospitals have been free to all who care to use them, and in consequence the visiting medical staff has to conduct some of its affairs in a manner which has been condemned by most overseas authorities. Doctors, like everybody else, cannot work effectively in an atmosphere where rush and bustle are the order of the day.

If anyone cares to look up the Report on Hospitals presented to both Houses of the Victorian Parliament in 1926, by Dr. Malcolm MacEachern, he will see that many of his recommendations, which are extraordinarily good, have been completely ignored in Queensland.

If Victoria is going to change its system it should take good care to see that in the change the best arrangements possible are made and not the worst.

In conclusion, may I say how much I appreciated Mr. Upjohn's lecture.

Yours, etc.,

E. S. MEYERS.

The University of Queensland Medical School,
Herston Road,
Brisbane, N.1.
September 23, 1953.

Post-Graduate Work.

THE POST-GRADUATE COMMITTEE IN MEDICINE IN THE UNIVERSITY OF SYDNEY.

Annual Subscription Course.

THE Post-Graduate Committee in Medicine in the University of Sydney announces that a lecture will be given by Professor J. McMichael, M.D., F.R.C.P., Professor of Medicine, Postgraduate Medical School of the University of London, on "Congestive Cardiac Failure" on Monday, October 12, 1953, at 8.15 p.m. in the Maitland Lecture Theatre, Sydney Hospital, Macquarie Street, Sydney.

Medical Appointments.

Dr. A. A. M. Lapin has been appointed public vaccinator of the Shire of Korumburra, Victoria.

Dr. A. G. Matthew has been appointed medical superintendent of the King Edward Maternity Hospital, Perth.

Dr. D. C. Maddison has been appointed senior medical officer in the Division of Mental Hygiene of the Department of Public Health, New South Wales.

Deaths.

THE following deaths have been announced:

KELLY.—James Lincoln Kelly, on September 23, 1953, at Sydney.

BARCLAY.—Francis Edison Barclay, on September 27, 1953, at Springwood, New South Wales.

Nominations and Elections.

The undermentioned has applied for election as a member of the New South Wales Branch of the British Medical Association:

d'Arbon, Paul John Peter, M.B., B.S., 1952 (Univ. Sydney), Saint Vincent's Hospital, Darlinghurst, New South Wales.

Diary for the Month.

OCT. 13.—New South Wales Branch, B.M.A.: Executive and Finance Committee.

OCT. 13.—New South Wales Branch, B.M.A.: Organization and Science Committee.

OCT. 19.—Victorian Branch, B.M.A.: Finance Subcommittee.

Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

New South Wales Branch (Medical Secretary, 135 Macquarie Street, Sydney): All contract practice appointments in New South Wales.

Victorian Branch (Honorary Secretary, Medical Society Hall, East Melbourne): Associated Medical Services Limited; all Institutes or Medical Dispensaries; Australian Prudential Association, Proprietary, Limited; Federal Mutual Medical Benefit Society; Mutual National Provident Club; National Provident Association; Hospital or other appointments outside Victoria.

Queensland Branch (Honorary Secretary, B.M.A. House, 225 Wickham Terrace, Brisbane, B17): Brisbane Associated Friendly Societies' Medical Institute; Bundaberg Medical Institute. Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL or position outside Australia are advised, in their own interests, to submit a copy of their Agreement to the Council before signing.

South Australian Branch (Honorary Secretary, 178 North Terrace, Adelaide): All Contract Practice appointments in South Australia.

Western Australian Branch (Honorary Secretary, 205 Saint George's Terrace, Perth): Norseman Hospital; all Contract Practice appointments in Western Australia. All government appointments with the exception of those of the Department of Public Health.

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to the Editor, THE MEDICAL JOURNAL OF AUSTRALIA, The Printing House, Seamer Street, Glebe, New South Wales. (Telephones: MW 2651-2.)

Members and subscribers are requested to notify the Manager, THE MEDICAL JOURNAL OF AUSTRALIA, Seamer Street, Glebe, New South Wales, without delay, of any irregularity in the delivery of this journal. The management cannot accept any responsibility or recognize any claim arising out of non-receipt of journals unless such notification is received within one month.

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